

ANALYTICAL REPORT

Job Number: 280-69589-1

Job Description: GSI - McConnell AFB (SWMU207 - Boeing)

For:

GSI Environmental, Inc
9600 Great Hills Trail, Ste 350E
Austin, TX 78759

Attention: Anna Zabierek

M. Elaine Walker

Approved for release.
Elaine M Walker
Project Manager II
6/9/2015 12:29 PM

Elaine M Walker, Project Manager II
4955 Yarrow Street, Arvada, CO, 80002
(303)736-0156
elaine.walker@testamericainc.com
06/09/2015

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The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

TestAmerica Laboratories, Inc.

TestAmerica Denver 4955 Yarrow Street, Arvada, CO 80002
Tel (303) 736-0100 Fax (303) 431-7171 www.testamericainc.com



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CASE NARRATIVE
Client: GSI Environmental, Inc
Project: GSI - McConnell AFB (SWMU207 - Boeing)
Report Number: 280-69589-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

Three samples were received on 05/21/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 5.2°C.

The Chain of Custody requests that sample samples 54400-MW54-0515 (280-69589-2) and 54401-MW54-0515 (280-69589-3) be analyzed on a rush turnaround time. Due to current laboratory capacity, the fastest turnaround time that TA Denver is able to provide for the requested analyses is 10 business days.

The rush VOC analysis for samples 54400-MW54-0515 (280-69589-2) and 54401-MW54-0515 (280-69589-3) are being reported with a Level II report under SDG 280-69589-2 on a 10 business day turnaround time. For the final deliverables, these samples have been combined with the remaining samples in SDG 280-69589-1 on a standard 15 business day turnaround time.

Please note - the results of Total Phosphorus and Sulfite, which the TestAmerica Denver laboratory does not hold DoD ELAP certification for, are being reported under the TestAmerica Standard QC program, and not as a DoD QSM 5.0 report. The results of these analyses are being reported under separate cover in SDB 280-68589-2.

VOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 54403-TB18-0515 (280-69589-1), 54400-MW54-0515 (280-69589-2) and 54401-MW54-0515 (280-69589-3) were analyzed for volatile organic compounds (GC/MS) in accordance with 8260B. The samples were analyzed on 05/29/2015.

Methylene Chloride was detected in method blank MB 280-279458/6 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". However, because the result concentration was less than ½ the reporting limit, no corrective action was necessary.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED METALS (ICP)

Sample 54400-MW54-0515 (280-69589-2) was analyzed for Dissolved Metals (ICP) in accordance with 6010C. The sample was prepared on 06/04/2015 and analyzed on 06/05/2015.

Iron was detected in method blank MB 280-280173/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". The instrument blank contained Iron greater than ½ the reporting limit, and was not reanalyzed because the method blank is less than the reporting limit, and iron is a common lab contaminate.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL METALS (ICP)

Sample 54400-MW54-0515 (280-69589-2) was analyzed for Total Metals (ICP) in accordance with 6010C. The sample was prepared on 05/29/2015 and analyzed on 05/30/2015 and 06/01/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ALKALINITY

Sample 54400-MW54-0515 (280-69589-2) was analyzed for Alkalinity in accordance with SM20 2320B. The sample was analyzed on 05/27/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL DISSOLVED SOLIDS

Sample 54400-MW54-0515 (280-69589-2) was analyzed for total dissolved solids in accordance with SM20 2540C. The sample was analyzed on 05/26/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HEXAVALENT CHROMIUM

Samples 54400-MW54-0515 (280-69589-2) and 54401-MW54-0515 (280-69589-3) were analyzed for hexavalent chromium in accordance with 7196A. The sample was analyzed on 05/21/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ANIONS, ION CHROMATOGRAPHY

Sample 54400-MW54-0515 (280-69589-2) was analyzed for Anions, Ion Chromatography in accordance with 9056A. The sample was analyzed on 05/21/2015.

Chloride was detected in method blank MB 280-278519/6 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". However, because the result concentration was less than ½ the reporting limit, no corrective action was necessary.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Instrument ID: VMS_H Analysis Batch Number: 279265Lab Sample ID: IC 280-279265/9 Client Sample ID: _____Date Analyzed: 05/28/15 00:18 Lab File ID: H2949.D GC Column: DB-624 (75.53 ID: 0.53 (mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2,4-Trichlorobenzene	16.08	Assign Peak	moanm	06/02/15 08:03
1,2,3-Trichlorobenzene	16.53	Assign Peak	moanm	06/02/15 08:03

Lab Sample ID: IC 280-279265/10 Client Sample ID: _____Date Analyzed: 05/28/15 00:40 Lab File ID: H2950.D GC Column: DB-624 (75.53 ID: 0.53 (mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.25	Baseline	wickhamt	05/28/15 06:21
1,2,4-Trichlorobenzene	16.08	Assign Peak	moanm	06/02/15 08:03
1,2,3-Trichlorobenzene	16.53	Assign Peak	moanm	06/02/15 08:03

Lab Sample ID: IC 280-279265/11 Client Sample ID: _____Date Analyzed: 05/28/15 01:03 Lab File ID: H2951.D GC Column: DB-624 (75.53 ID: 0.53 (mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.25	Shouldering	wickhamt	05/28/15 06:22
1,2,4-Trichlorobenzene	16.07	Assign Peak	moanm	06/02/15 08:04
1,2,3-Trichlorobenzene	16.52	Assign Peak	moanm	06/02/15 08:04

Lab Sample ID: IC 280-279265/12 Client Sample ID: _____Date Analyzed: 05/28/15 01:25 Lab File ID: H2952.D GC Column: DB-624 (75.53 ID: 0.53 (mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2,4-Trichlorobenzene	16.09	Assign Peak	moanm	06/02/15 08:04
1,2,3-Trichlorobenzene	16.54	Assign Peak	moanm	06/02/15 08:04

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Instrument ID: VMS_H Analysis Batch Number: 279265Lab Sample ID: IC 280-279265/13 Client Sample ID: _____Date Analyzed: 05/28/15 01:48 Lab File ID: H2953.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2,4-Trichlorobenzene	16.07	Assign Peak	moanm	06/02/15 08:04
1,2,3-Trichlorobenzene	16.53	Assign Peak	moanm	06/02/15 08:04

Lab Sample ID: IC 280-279265/14 Client Sample ID: _____Date Analyzed: 05/28/15 02:10 Lab File ID: H2954.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2,4-Trichlorobenzene	16.09	Assign Peak	moanm	06/02/15 08:04
1,2,3-Trichlorobenzene	16.54	Assign Peak	moanm	06/02/15 08:04

Lab Sample ID: IC 280-279265/15 Client Sample ID: _____Date Analyzed: 05/28/15 02:33 Lab File ID: H2955.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2,4-Trichlorobenzene	16.08	Assign Peak	moanm	06/02/15 08:05
1,2,3-Trichlorobenzene	16.53	Assign Peak	moanm	06/02/15 08:05

Lab Sample ID: IC 280-279265/16 Client Sample ID: _____Date Analyzed: 05/28/15 03:18 Lab File ID: H2957.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetonitrile	3.80	Split Peak	wickhamt	05/28/15 06:50

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Instrument ID: VMS_H Analysis Batch Number: 279265Lab Sample ID: IC 280-279265/17 Client Sample ID: _____Date Analyzed: 05/28/15 03:40 Lab File ID: H2958.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethanol	3.17	Shouldering	wickhamt	05/28/15 06:52
Acetonitrile	3.85	Split Peak	wickhamt	05/28/15 06:50

Lab Sample ID: IC 280-279265/18 Client Sample ID: _____Date Analyzed: 05/28/15 04:03 Lab File ID: H2959.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethanol	3.19	Shouldering	wickhamt	05/28/15 06:52

Lab Sample ID: IC 280-279265/20 Client Sample ID: _____Date Analyzed: 05/28/15 04:48 Lab File ID: H2961.D GC Column: DB-624 (75.53 ID: 0.53(mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.63	Assign Peak	wickhamt	05/28/15 06:49

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Instrument ID: VMS_H Analysis Batch Number: 279458

Lab Sample ID: CCV 280-279458/3 Client Sample ID: _____

Date Analyzed: 05/28/15 19:39 Lab File ID: H2999.D GC Column: DB-624 (75.53 ID: 0.53 (mm))

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.63	Assign Peak	bergerb	05/28/15 20:12
4-Bromofluorobenzene (Surr)	12.77	Split Peak	bergerb	05/28/15 20:12

SAMPLE SUMMARY

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-69589-1TB	54403-TB18-0515	Water	05/20/2015 0000	05/21/2015 0710
280-69589-2	54400-MW54-0515	Water	05/20/2015 1620	05/21/2015 0710
280-69589-3FD	54401-MW54-0515	Water	05/20/2015 1620	05/21/2015 0710

EXECUTIVE SUMMARY - Detections

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
280-69589-2	54400-MW54-0515					
1,1-Dichloroethene		4.6		1.0	ug/L	8260B
Bromodichloromethane		0.56	J	1.0	ug/L	8260B
Bromoform		0.24	J	1.0	ug/L	8260B
Carbon tetrachloride		1.8	J	2.0	ug/L	8260B
Chlorodibromomethane		0.60	J	1.0	ug/L	8260B
Chloroform		0.59	J	1.0	ug/L	8260B
Trichloroethene		2.3		1.0	ug/L	8260B
Calcium		90000		1000	ug/L	6010C
Iron		110		100	ug/L	6010C
Magnesium		9500		500	ug/L	6010C
Potassium		1300	J	3000	ug/L	6010C
Sodium		59000		5000	ug/L	6010C
Nitrate as N		0.95		0.50	mg/L	9056
Chloride		22		3.0	mg/L	9056A
Sulfate		20		5.0	mg/L	9056A
Alkalinity		320		5.0	mg/L	SM 2320B
Bicarbonate Alkalinity as CaCO3		320		5.0	mg/L	SM 2320B
Total Dissolved Solids (TDS)		440		10	mg/L	SM 2540C
280-69589-3FD	54401-MW54-0515					
1,1-Dichloroethene		4.8		1.0	ug/L	8260B
Bromodichloromethane		0.55	J	1.0	ug/L	8260B
Bromoform		0.25	J	1.0	ug/L	8260B
Carbon tetrachloride		1.9	J	2.0	ug/L	8260B
Chlorodibromomethane		0.62	J	1.0	ug/L	8260B
Chloroform		0.58	J	1.0	ug/L	8260B
Trichloroethene		2.3		1.0	ug/L	8260B

METHOD SUMMARY

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL DEN	SW846 8260B	
Purge and Trap	TAL DEN		SW846 5030B
Metals (ICP)	TAL DEN	SW846 6010C	
Preparation, Total Recoverable or Dissolved Metals	TAL DEN		SW846 3005A
Sample Filtration, Field			FIELD_FLTRD
Metals (ICP)	TAL DEN	SW846 6010C	
Preparation, Total Metals	TAL DEN		SW846 3010A
Chromium, Hexavalent	TAL DEN	SW846 7196A	
Anions, Ion Chromatography	TAL DEN	SW846 9056	
Anions, Ion Chromatography	TAL DEN	SW846 9056A	
Alkalinity	TAL DEN	SM SM 2320B	
Solids, Total Dissolved (TDS)	TAL DEN	SM SM 2540C	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Method	Analyst	Analyst ID
SW846 8260B	Berger, Brent B	BBB
SW846 6010C	Broander, Laura L	LLB
SW846 6010C	Rhoades, Chris R	CRR
SW846 7196A	Cherry, Scott V	SVC
SW846 9056	Phan, Thu L	TLP
SW846 9056A	Phan, Thu L	TLP
SM SM 2320B	Jewell, Connie C	CCJ
SM SM 2540C	Cherry, Scott V	SVC

Analytical Data

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Client Sample ID: 54403-TB18-0515

Lab Sample ID: 280-69589-1TB

Date Sampled: 05/20/2015 0000

Client Matrix: Water

Date Received: 05/21/2015 0710

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-279458	Instrument ID: VMS_H
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: H3015.D
Dilution: 1.0		Initial Weight/Volume: 20 mL
Analysis Date: 05/29/2015 0141		Final Weight/Volume: 20 mL
Prep Date: 05/29/2015 0141		

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.80	U	0.17	1.0
1,1,1-Trichloroethane	0.40	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.80	U	0.20	1.0
1,1,2-Trichloroethane	0.80	U	0.32	1.0
1,1-Dichloroethane	0.80	U	0.16	1.0
1,1-Dichloroethene	0.80	U	0.14	1.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,2,3-Trichlorobenzene	0.80	U	0.18	1.0
1,2,3-Trichloropropane	0.80	U	0.77	3.0
1,2,4-Trichlorobenzene	0.80	U	0.32	1.0
1,2,4-Trimethylbenzene	0.40	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,2-Dibromoethane	0.40	U	0.18	1.0
1,2-Dichlorobenzene	0.40	U	0.13	1.0
1,2-Dichloroethane	0.40	U	0.13	1.0
1,2-Dichloropropane	0.40	U	0.13	1.0
1,3,5-Trimethylbenzene	0.40	U	0.14	1.0
1,3-Dichlorobenzene	0.40	U	0.16	1.0
1,3-Dichloropropane	0.80	U	0.15	1.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Butanone (MEK)	4.0	U	1.8	6.0
2-Chlorotoluene	0.40	U	0.17	1.0
2-Hexanone	4.0	U	1.4	5.0
4-Chlorotoluene	0.80	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	3.2	U	1.0	5.0
Acetone	6.4	U	1.9	10
Benzene	0.40	U	0.16	1.0
Bromobenzene	0.40	U	0.17	1.0
Bromochloromethane	0.20	U	0.10	1.0
Bromodichloromethane	0.40	U	0.17	1.0
Bromoform	0.40	U	0.19	1.0
Bromomethane	0.80	U	0.21	2.0
Carbon disulfide	1.6	U	0.45	2.0
Carbon tetrachloride	0.40	U	0.19	2.0
Chlorobenzene	0.40	U	0.17	1.0
Chlorodibromomethane	0.40	U	0.17	1.0
Chloroethane	1.6	U	0.41	2.0
Chloroform	0.40	U	0.16	1.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	0.40	U	0.15	1.0
cis-1,3-Dichloropropene	0.40	U	0.16	1.0
Dibromomethane	0.40	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.40	U	0.16	1.0
Hexachlorobutadiene	0.80	U	0.36	1.0

Analytical Data

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Client Sample ID: 54403-TB18-0515

Lab Sample ID: 280-69589-1TB

Date Sampled: 05/20/2015 0000

Client Matrix: Water

Date Received: 05/21/2015 0710

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-279458	Instrument ID: VMS_H
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: H3015.D
Dilution: 1.0		Initial Weight/Volume: 20 mL
Analysis Date: 05/29/2015 0141		Final Weight/Volume: 20 mL
Prep Date: 05/29/2015 0141		

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Isopropylbenzene	0.40	U	0.19	1.0
Methyl tert-butyl ether	0.80	U	0.25	5.0
Methylene Chloride	0.80	U	0.32	5.0
m-Xylene & p-Xylene	0.80	U	0.34	2.0
Naphthalene	0.80	U	0.22	1.0
n-Butylbenzene	0.80	U	0.32	1.0
N-Propylbenzene	0.40	U	0.16	1.0
o-Xylene	0.40	U	0.19	1.0
p-Isopropyltoluene	0.40	U	0.17	1.0
sec-Butylbenzene	0.40	U	0.17	1.0
Styrene	0.40	U	0.17	1.0
tert-Butyl alcohol	32	U	11	50
tert-Butylbenzene	0.40	U	0.16	1.0
Tetrachloroethene	0.40	U	0.20	1.0
Toluene	0.40	U	0.17	1.0
trans-1,2-Dichloroethene	0.40	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Trichloroethene	0.40	U	0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.20	U	0.10	1.5

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	96		81 - 118
4-Bromofluorobenzene (Surr)	99		85 - 114
Dibromofluoromethane (Surr)	98		80 - 119
Toluene-d8 (Surr)	98		89 - 112

Analytical Data

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Client Sample ID: 54400-MW54-0515

Lab Sample ID: 280-69589-2

Date Sampled: 05/20/2015 1620

Client Matrix: Water

Date Received: 05/21/2015 0710

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-279458	Instrument ID: VMS_H
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: H3016.D
Dilution: 1.0		Initial Weight/Volume: 20 mL
Analysis Date: 05/29/2015 0204		Final Weight/Volume: 20 mL
Prep Date: 05/29/2015 0204		

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.80	U	0.17	1.0
1,1,1-Trichloroethane	0.40	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.80	U	0.20	1.0
1,1,2-Trichloroethane	0.80	U	0.32	1.0
1,1-Dichloroethane	0.80	U	0.16	1.0
1,1-Dichloroethene	4.6		0.14	1.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,2,3-Trichlorobenzene	0.80	U	0.18	1.0
1,2,3-Trichloropropane	0.80	U	0.77	3.0
1,2,4-Trichlorobenzene	0.80	U	0.32	1.0
1,2,4-Trimethylbenzene	0.40	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,2-Dibromoethane	0.40	U	0.18	1.0
1,2-Dichlorobenzene	0.40	U	0.13	1.0
1,2-Dichloroethane	0.40	U	0.13	1.0
1,2-Dichloropropane	0.40	U	0.13	1.0
1,3,5-Trimethylbenzene	0.40	U	0.14	1.0
1,3-Dichlorobenzene	0.40	U	0.16	1.0
1,3-Dichloropropane	0.80	U	0.15	1.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Butanone (MEK)	4.0	U	1.8	6.0
2-Chlorotoluene	0.40	U	0.17	1.0
2-Hexanone	4.0	U	1.4	5.0
4-Chlorotoluene	0.80	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	3.2	U	1.0	5.0
Acetone	6.4	U	1.9	10
Benzene	0.40	U	0.16	1.0
Bromobenzene	0.40	U	0.17	1.0
Bromochloromethane	0.20	U	0.10	1.0
Bromodichloromethane	0.56	J	0.17	1.0
Bromoform	0.24	J	0.19	1.0
Bromomethane	0.80	U	0.21	2.0
Carbon disulfide	1.6	U	0.45	2.0
Carbon tetrachloride	1.8	J	0.19	2.0
Chlorobenzene	0.40	U	0.17	1.0
Chlorodibromomethane	0.60	J	0.17	1.0
Chloroethane	1.6	U	0.41	2.0
Chloroform	0.59	J	0.16	1.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	0.40	U	0.15	1.0
cis-1,3-Dichloropropene	0.40	U	0.16	1.0
Dibromomethane	0.40	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.40	U	0.16	1.0
Hexachlorobutadiene	0.80	U	0.36	1.0

Analytical Data

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Client Sample ID: 54400-MW54-0515

Lab Sample ID: 280-69589-2

Date Sampled: 05/20/2015 1620

Client Matrix: Water

Date Received: 05/21/2015 0710

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-279458	Instrument ID: VMS_H
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: H3016.D
Dilution: 1.0		Initial Weight/Volume: 20 mL
Analysis Date: 05/29/2015 0204		Final Weight/Volume: 20 mL
Prep Date: 05/29/2015 0204		

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Isopropylbenzene	0.40	U	0.19	1.0
Methyl tert-butyl ether	0.80	U	0.25	5.0
Methylene Chloride	0.80	U	0.32	5.0
m-Xylene & p-Xylene	0.80	U	0.34	2.0
Naphthalene	0.80	U	0.22	1.0
n-Butylbenzene	0.80	U	0.32	1.0
N-Propylbenzene	0.40	U	0.16	1.0
o-Xylene	0.40	U	0.19	1.0
p-Isopropyltoluene	0.40	U	0.17	1.0
sec-Butylbenzene	0.40	U	0.17	1.0
Styrene	0.40	U	0.17	1.0
tert-Butyl alcohol	32	U	11	50
tert-Butylbenzene	0.40	U	0.16	1.0
Tetrachloroethene	0.40	U	0.20	1.0
Toluene	0.40	U	0.17	1.0
trans-1,2-Dichloroethene	0.40	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Trichloroethene	2.3		0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.20	U	0.10	1.5

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	96		81 - 118
4-Bromofluorobenzene (Surr)	100		85 - 114
Dibromofluoromethane (Surr)	100		80 - 119
Toluene-d8 (Surr)	99		89 - 112

Analytical Data

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Client Sample ID: 54401-MW54-0515

Lab Sample ID: 280-69589-3FD

Date Sampled: 05/20/2015 1620

Client Matrix: Water

Date Received: 05/21/2015 0710

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-279458	Instrument ID: VMS_H
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: H3017.D
Dilution: 1.0		Initial Weight/Volume: 20 mL
Analysis Date: 05/29/2015 0226		Final Weight/Volume: 20 mL
Prep Date: 05/29/2015 0226		

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.80	U	0.17	1.0
1,1,1-Trichloroethane	0.40	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.80	U	0.20	1.0
1,1,2-Trichloroethane	0.80	U	0.32	1.0
1,1-Dichloroethane	0.80	U	0.16	1.0
1,1-Dichloroethene	4.8		0.14	1.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,2,3-Trichlorobenzene	0.80	U	0.18	1.0
1,2,3-Trichloropropane	0.80	U	0.77	3.0
1,2,4-Trichlorobenzene	0.80	U	0.32	1.0
1,2,4-Trimethylbenzene	0.40	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,2-Dibromoethane	0.40	U	0.18	1.0
1,2-Dichlorobenzene	0.40	U	0.13	1.0
1,2-Dichloroethane	0.40	U	0.13	1.0
1,2-Dichloropropane	0.40	U	0.13	1.0
1,3,5-Trimethylbenzene	0.40	U	0.14	1.0
1,3-Dichlorobenzene	0.40	U	0.16	1.0
1,3-Dichloropropane	0.80	U	0.15	1.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Butanone (MEK)	4.0	U	1.8	6.0
2-Chlorotoluene	0.40	U	0.17	1.0
2-Hexanone	4.0	U	1.4	5.0
4-Chlorotoluene	0.80	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	3.2	U	1.0	5.0
Acetone	6.4	U	1.9	10
Benzene	0.40	U	0.16	1.0
Bromobenzene	0.40	U	0.17	1.0
Bromochloromethane	0.20	U	0.10	1.0
Bromodichloromethane	0.55	J	0.17	1.0
Bromoform	0.25	J	0.19	1.0
Bromomethane	0.80	U	0.21	2.0
Carbon disulfide	1.6	U	0.45	2.0
Carbon tetrachloride	1.9	J	0.19	2.0
Chlorobenzene	0.40	U	0.17	1.0
Chlorodibromomethane	0.62	J	0.17	1.0
Chloroethane	1.6	U	0.41	2.0
Chloroform	0.58	J	0.16	1.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	0.40	U	0.15	1.0
cis-1,3-Dichloropropene	0.40	U	0.16	1.0
Dibromomethane	0.40	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.40	U	0.16	1.0
Hexachlorobutadiene	0.80	U	0.36	1.0

Analytical Data

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Client Sample ID: 54401-MW54-0515

Lab Sample ID: 280-69589-3FD

Date Sampled: 05/20/2015 1620

Client Matrix: Water

Date Received: 05/21/2015 0710

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 280-279458	Instrument ID: VMS_H
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: H3017.D
Dilution: 1.0		Initial Weight/Volume: 20 mL
Analysis Date: 05/29/2015 0226		Final Weight/Volume: 20 mL
Prep Date: 05/29/2015 0226		

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Isopropylbenzene	0.40	U	0.19	1.0
Methyl tert-butyl ether	0.80	U	0.25	5.0
Methylene Chloride	0.80	U	0.32	5.0
m-Xylene & p-Xylene	0.80	U	0.34	2.0
Naphthalene	0.80	U	0.22	1.0
n-Butylbenzene	0.80	U	0.32	1.0
N-Propylbenzene	0.40	U	0.16	1.0
o-Xylene	0.40	U	0.19	1.0
p-Isopropyltoluene	0.40	U	0.17	1.0
sec-Butylbenzene	0.40	U	0.17	1.0
Styrene	0.40	U	0.17	1.0
tert-Butyl alcohol	32	U	11	50
tert-Butylbenzene	0.40	U	0.16	1.0
Tetrachloroethene	0.40	U	0.20	1.0
Toluene	0.40	U	0.17	1.0
trans-1,2-Dichloroethene	0.40	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Trichloroethene	2.3		0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.20	U	0.10	1.5

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	95		81 - 118
4-Bromofluorobenzene (Surr)	101		85 - 114
Dibromofluoromethane (Surr)	98		80 - 119
Toluene-d8 (Surr)	98		89 - 112

Analytical Data

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Client Sample ID: 54400-MW54-0515

Lab Sample ID: 280-69589-2
Client Matrix: Water

Date Sampled: 05/20/2015 1620
Date Received: 05/21/2015 0710

6010C Metals (ICP)

Analysis Method: 6010C Analysis Batch: 280-279691 Instrument ID: MT_025
Prep Method: 3010A Prep Batch: 280-279404 Lab File ID: 26c053015.asc
Dilution: 1.0 Initial Weight/Volume: 50 mL
Analysis Date: 05/30/2015 1816 Final Weight/Volume: 50 mL
Prep Date: 05/29/2015 1445

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Magnesium	9500		11	500

Analysis Method: 6010C Analysis Batch: 280-279916 Instrument ID: MT_025
Prep Method: 3010A Prep Batch: 280-279404 Lab File ID: 25A060115.asc
Dilution: 1.0 Initial Weight/Volume: 50 mL
Analysis Date: 06/01/2015 1255 Final Weight/Volume: 50 mL
Prep Date: 05/29/2015 1445

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Calcium	90000		35	1000
Iron	110		22	100
Potassium	1300	J	240	3000
Sodium	59000		92	5000

6010C Metals (ICP)-Dissolved

Analysis Method: 6010C Analysis Batch: 280-280670 Instrument ID: MT_025
Prep Method: 3005A Prep Batch: 280-280173 Lab File ID: 25a060515a.asc
Dilution: 1.0 Initial Weight/Volume: 50 mL
Analysis Date: 06/05/2015 1337 Final Weight/Volume: 50 mL
Prep Date: 06/04/2015 0900

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Iron	85	U	22	100

Analytical Data

Client: GSI Environmental, Inc

Job Number: 280-69589-1

General Chemistry

Client Sample ID: 54400-MW54-0515

Lab Sample ID: 280-69589-2

Date Sampled: 05/20/2015 1620

Client Matrix: Water

Date Received: 05/21/2015 0710

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
Chromium, hexavalent	0.0040	U	mg/L	0.0040	0.020	1.0	7196A
	Analysis Batch: 280-278571	Analysis Date: 05/21/2015	1119				
Nitrate as N	0.95		mg/L	0.042	0.50	1.0	9056
	Analysis Batch: 280-278518	Analysis Date: 05/21/2015	1412				
Nitrite as N	0.10	U	mg/L	0.049	0.50	1.0	9056
	Analysis Batch: 280-278518	Analysis Date: 05/21/2015	1412				
Chloride	22		mg/L	0.25	3.0	1.0	9056A
	Analysis Batch: 280-278519	Analysis Date: 05/21/2015	1412				
Sulfate	20		mg/L	0.23	5.0	1.0	9056A
	Analysis Batch: 280-278519	Analysis Date: 05/21/2015	1412				
Alkalinity	320		mg/L	1.1	5.0	1.0	SM 2320B
	Analysis Batch: 280-279244	Analysis Date: 05/27/2015	1601				
Bicarbonate Alkalinity as CaCO3	320		mg/L	1.1	5.0	1.0	SM 2320B
	Analysis Batch: 280-279244	Analysis Date: 05/27/2015	1601				
Carbonate Alkalinity as CaCO3	3.2	U	mg/L	1.1	5.0	1.0	SM 2320B
	Analysis Batch: 280-279244	Analysis Date: 05/27/2015	1601				
Total Dissolved Solids (TDS)	440		mg/L	4.7	10	1.0	SM 2540C
	Analysis Batch: 280-279061	Analysis Date: 05/26/2015	1412				

Analytical Data

Client: GSI Environmental, Inc

Job Number: 280-69589-1

General Chemistry

Client Sample ID: 54401-MW54-0515

Lab Sample ID: 280-69589-3FD

Date Sampled: 05/20/2015 1620

Client Matrix: Water

Date Received: 05/21/2015 0710

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
Chromium, hexavalent	0.0040	U	mg/L	0.0040	0.020	1.0	7196A

Analysis Batch: 280-278571 Analysis Date: 05/21/2015 1119

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
280-69589-1	54403-TB18-0515	98	96	98	99
280-69589-2	54400-MW54-0515	100	96	99	100
280-69589-3	54401-MW54-0515	98	95	98	101
MB 280-279458/6		98	95	100	101
LCS 280-279458/4		96	97	104	102

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	80-119
DCA = 1,2-Dichloroethane-d4 (Surr)	81-118
TOL = Toluene-d8 (Surr)	89-112
BFB = 4-Bromofluorobenzene (Surr)	85-114

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Method Blank - Batch: 280-279458

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 280-279458/6
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/28/2015 2110
 Prep Date: 05/28/2015 2110
 Leach Date: N/A

Analysis Batch: 280-279458
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: VMS_H
 Lab File ID: H3003.D
 Initial Weight/Volume: 20 mL
 Final Weight/Volume: 20 mL

Analyte	Result	Qual	DL	LOQ
1,1,1,2-Tetrachloroethane	0.80	U	0.17	1.0
1,1,1-Trichloroethane	0.40	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.80	U	0.20	1.0
1,1,2-Trichloroethane	0.80	U	0.32	1.0
1,1-Dichloroethane	0.80	U	0.16	1.0
1,1-Dichloroethene	0.80	U	0.14	1.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,2,3-Trichlorobenzene	0.80	U	0.18	1.0
1,2,3-Trichloropropane	0.80	U	0.77	3.0
1,2,4-Trichlorobenzene	0.80	U	0.32	1.0
1,2,4-Trimethylbenzene	0.40	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,2-Dibromoethane	0.40	U	0.18	1.0
1,2-Dichlorobenzene	0.40	U	0.13	1.0
1,2-Dichloroethane	0.40	U	0.13	1.0
1,2-Dichloropropane	0.40	U	0.13	1.0
1,3,5-Trimethylbenzene	0.40	U	0.14	1.0
1,3-Dichlorobenzene	0.40	U	0.16	1.0
1,3-Dichloropropane	0.80	U	0.15	1.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Butanone (MEK)	4.0	U	1.8	6.0
2-Chlorotoluene	0.40	U	0.17	1.0
2-Hexanone	4.0	U	1.4	5.0
4-Chlorotoluene	0.80	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	3.2	U	1.0	5.0
Acetone	6.4	U	1.9	10
Benzene	0.40	U	0.16	1.0
Bromobenzene	0.40	U	0.17	1.0
Bromochloromethane	0.20	U	0.10	1.0
Bromodichloromethane	0.40	U	0.17	1.0
Bromoform	0.40	U	0.19	1.0
Bromomethane	0.80	U	0.21	2.0
Carbon disulfide	1.6	U	0.45	2.0
Carbon tetrachloride	0.40	U	0.19	2.0
Chlorobenzene	0.40	U	0.17	1.0
Chlorodibromomethane	0.40	U	0.17	1.0
Chloroethane	1.6	U	0.41	2.0
Chloroform	0.40	U	0.16	1.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	0.40	U	0.15	1.0
cis-1,3-Dichloropropene	0.40	U	0.16	1.0
Dibromomethane	0.40	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.40	U	0.16	1.0

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Method Blank - Batch: 280-279458

**Method: 8260B
Preparation: 5030B**

Lab Sample ID: MB 280-279458/6
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/28/2015 2110
 Prep Date: 05/28/2015 2110
 Leach Date: N/A

Analysis Batch: 280-279458
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: VMS_H
 Lab File ID: H3003.D
 Initial Weight/Volume: 20 mL
 Final Weight/Volume: 20 mL

Analyte	Result	Qual	DL	LOQ
Hexachlorobutadiene	0.80	U	0.36	1.0
Isopropylbenzene	0.40	U	0.19	1.0
Methyl tert-butyl ether	0.80	U	0.25	5.0
Methylene Chloride	0.661	J	0.32	5.0
m-Xylene & p-Xylene	0.80	U	0.34	2.0
Naphthalene	0.80	U	0.22	1.0
n-Butylbenzene	0.80	U	0.32	1.0
N-Propylbenzene	0.40	U	0.16	1.0
o-Xylene	0.40	U	0.19	1.0
p-Isopropyltoluene	0.40	U	0.17	1.0
sec-Butylbenzene	0.40	U	0.17	1.0
Styrene	0.40	U	0.17	1.0
tert-Butyl alcohol	32	U	11	50
tert-Butylbenzene	0.40	U	0.16	1.0
Tetrachloroethene	0.40	U	0.20	1.0
Toluene	0.40	U	0.17	1.0
trans-1,2-Dichloroethene	0.40	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Trichloroethene	0.40	U	0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.20	U	0.10	1.5

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	95	81 - 118
4-Bromofluorobenzene (Surr)	101	85 - 114
Dibromofluoromethane (Surr)	98	80 - 119
Toluene-d8 (Surr)	100	89 - 112

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Lab Control Sample - Batch: 280-279458

**Method: 8260B
Preparation: 5030B**

Lab Sample ID:	LCS 280-279458/4	Analysis Batch:	280-279458	Instrument ID:	VMS_H
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	H3001.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	05/28/2015 2025	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	05/28/2015 2025				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1,2-Tetrachloroethane	5.00	5.08	102	78 - 124	
1,1,1-Trichloroethane	5.00	4.84	97	74 - 131	
1,1,2,2-Tetrachloroethane	5.00	4.78	96	71 - 121	
1,1,2-Trichloroethane	5.00	4.98	100	80 - 119	
1,1-Dichloroethane	5.00	4.83	97	77 - 125	
1,1-Dichloroethene	5.00	4.75	95	71 - 131	
1,1-Dichloropropene	5.00	4.98	100	79 - 125	
1,2,3-Trichlorobenzene	5.00	5.19	104	69 - 129	
1,2,3-Trichloropropane	5.00	4.77	95	73 - 122	
1,2,4-Trichlorobenzene	5.00	5.11	102	69 - 130	
1,2,4-Trimethylbenzene	5.00	4.72	94	76 - 124	
1,2-Dibromo-3-Chloropropane	5.00	5.13	103	62 - 128	
1,2-Dibromoethane	5.00	5.07	101	77 - 121	
1,2-Dichlorobenzene	5.00	5.01	100	80 - 119	
1,2-Dichloroethane	5.00	4.89	98	73 - 128	
1,2-Dichloropropane	5.00	4.80	96	78 - 122	
1,3,5-Trimethylbenzene	5.00	4.81	96	75 - 124	
1,3-Dichlorobenzene	5.00	4.58	92	80 - 119	
1,3-Dichloropropane	5.00	4.84	97	80 - 119	
1,4-Dichlorobenzene	5.00	5.17	103	79 - 118	
2,2-Dichloropropane	5.00	4.78	96	60 - 139	
2-Butanone (MEK)	20.0	21.0	105	56 - 143	
2-Chlorotoluene	5.00	4.74	95	79 - 122	
2-Hexanone	20.0	20.9	105	57 - 139	
4-Chlorotoluene	5.00	4.93	99	78 - 122	
4-Methyl-2-pentanone (MIBK)	20.0	21.6	108	67 - 130	
Acetone	20.0	18.1	90	39 - 160	
Benzene	5.00	5.00	100	79 - 120	
Bromobenzene	5.00	4.86	97	80 - 120	
Bromochloromethane	5.00	4.96	99	78 - 123	
Bromodichloromethane	5.00	4.89	98	79 - 125	
Bromoform	5.00	5.18	104	66 - 130	
Bromomethane	5.00	5.40	108	53 - 141	
Carbon disulfide	5.00	4.62	92	64 - 133	
Carbon tetrachloride	5.00	4.83	97	72 - 136	
Chlorobenzene	5.00	5.02	100	82 - 118	
Chlorodibromomethane	5.00	5.15	103	74 - 126	
Chloroethane	5.00	5.36	107	60 - 138	
Chloroform	5.00	4.88	98	79 - 124	
Chloromethane	5.00	5.32	106	50 - 139	
cis-1,2-Dichloroethene	5.00	4.80	96	78 - 123	
cis-1,3-Dichloropropene	5.00	5.19	104	75 - 124	
Dibromomethane	5.00	4.73	95	79 - 123	
Dichlorodifluoromethane	5.00	5.86	117	32 - 152	
Ethylbenzene	5.00	4.91	98	79 - 121	
Hexachlorobutadiene	5.00	4.97	99	66 - 134	

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Lab Control Sample - Batch: 280-279458

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 280-279458/4	Analysis Batch: 280-279458	Instrument ID: VMS_H
Client Matrix: Water	Prep Batch: N/A	Lab File ID: H3001.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 20 mL
Analysis Date: 05/28/2015 2025	Units: ug/L	Final Weight/Volume: 20 mL
Prep Date: 05/28/2015 2025		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Isopropylbenzene	5.00	4.83	97	72 - 131	
Methyl tert-butyl ether	5.00	5.03	101	71 - 124	
Methylene Chloride	5.00	5.93	119	74 - 124	
m-Xylene & p-Xylene	5.00	5.11	102	80 - 121	
Naphthalene	5.00	5.09	102	61 - 128	
n-Butylbenzene	5.00	4.76	95	75 - 128	
N-Propylbenzene	5.00	4.79	96	76 - 126	
o-Xylene	5.00	4.95	99	78 - 122	
p-Isopropyltoluene	5.00	4.92	98	77 - 127	
sec-Butylbenzene	5.00	4.73	95	77 - 126	
Styrene	5.00	4.91	98	78 - 123	
tert-Butyl alcohol	50.0	54.5	109	68 - 129	
tert-Butylbenzene	5.00	4.75	95	78 - 124	
Tetrachloroethene	5.00	5.00	100	74 - 129	
Toluene	5.00	4.90	98	80 - 121	
trans-1,2-Dichloroethene	5.00	4.84	97	75 - 124	
trans-1,3-Dichloropropene	5.00	5.20	104	73 - 127	
Trichloroethene	5.00	5.05	101	79 - 123	
Trichlorofluoromethane	5.00	5.50	110	65 - 141	
Vinyl chloride	5.00	5.41	108	58 - 137	
Surrogate		% Rec		Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		97		81 - 118	
4-Bromofluorobenzene (Surr)		102		85 - 114	
Dibromofluoromethane (Surr)		96		80 - 119	
Toluene-d8 (Surr)		104		89 - 112	

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Method Blank - Batch: 280-279404

Method: 6010C
Preparation: 3010A

Lab Sample ID: MB 280-279404/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/30/2015 1812
Prep Date: 05/29/2015 1445
Leach Date: N/A

Analysis Batch: 280-279691
Prep Batch: 280-279404
Leach Batch: N/A
Units: ug/L

Instrument ID: MT_025
Lab File ID: 26c053015.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	DL	LOQ
Magnesium	40	U	11	500

Method Blank - Batch: 280-279404

Method: 6010C
Preparation: 3010A

Lab Sample ID: MB 280-279404/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 06/01/2015 1251
Prep Date: 05/29/2015 1445
Leach Date: N/A

Analysis Batch: 280-279916
Prep Batch: 280-279404
Leach Batch: N/A
Units: ug/L

Instrument ID: MT_025
Lab File ID: 25A060115.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	DL	LOQ
Calcium	140	U	35	1000
Iron	85	U	22	100
Potassium	940	U	240	3000
Sodium	350	U	92	5000

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Lab Control Sample - Batch: 280-279404

Method: 6010C
Preparation: 3010A

Lab Sample ID: LCS 280-279404/2-A	Analysis Batch: 280-279691	Instrument ID: MT_025
Client Matrix: Water	Prep Batch: 280-279404	Lab File ID: 26c053015.asc
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 50 mL
Analysis Date: 05/30/2015 1814	Units: ug/L	Final Weight/Volume: 50 mL
Prep Date: 05/29/2015 1445		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Magnesium	50000	48700	97	85 - 113	

Lab Control Sample - Batch: 280-279404

Method: 6010C
Preparation: 3010A

Lab Sample ID: LCS 280-279404/2-A	Analysis Batch: 280-279916	Instrument ID: MT_025
Client Matrix: Water	Prep Batch: 280-279404	Lab File ID: 25A060115.asc
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 50 mL
Analysis Date: 06/01/2015 1253	Units: ug/L	Final Weight/Volume: 50 mL
Prep Date: 05/29/2015 1445		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Calcium	50000	50200	100	87 - 113	
Iron	1000	1000	100	87 - 115	
Potassium	50000	51400	103	86 - 114	
Sodium	50000	51900	104	87 - 115	

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Post Digestion Spike - Batch: 280-279404

**Method: 6010C
Preparation: 3010A**

Lab Sample ID: 280-69589-2	Analysis Batch: 280-279691	Instrument ID: MT_025
Client Matrix: Water	Prep Batch: 280-279404	Lab File ID: 26c053015.asc
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 50 mL
Analysis Date: 05/30/2015 1826	Units: ug/L	Final Weight/Volume: 50 mL
Prep Date: 05/29/2015 1445		
Leach Date: N/A		

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Magnesium	9500	20000	27700	91	80 - 120	

Post Digestion Spike - Batch: 280-279404

**Method: 6010C
Preparation: 3010A**

Lab Sample ID: 280-69589-2	Analysis Batch: 280-279916	Instrument ID: MT_025
Client Matrix: Water	Prep Batch: 280-279404	Lab File ID: 25A060115.asc
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 50 mL
Analysis Date: 06/01/2015 1306	Units: ug/L	Final Weight/Volume: 50 mL
Prep Date: 05/29/2015 1445		
Leach Date: N/A		

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Calcium	90000	20000	108000	89	80 - 120	
Iron	110	1000	1090	98	80 - 120	
Potassium	1300 J	20000	21400	101	80 - 120	
Sodium	59000	20000	80400	105	80 - 120	

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-279404**

**Method: 6010C
Preparation: 3010A**

MS Lab Sample ID: 280-69589-2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/30/2015 1822
Prep Date: 05/29/2015 1445
Leach Date: N/A

Analysis Batch: 280-279691
Prep Batch: 280-279404
Leach Batch: N/A

Instrument ID: MT_025
Lab File ID: 26c053015.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 280-69589-2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/30/2015 1824
Prep Date: 05/29/2015 1445
Leach Date: N/A

Analysis Batch: 280-279691
Prep Batch: 280-279404
Leach Batch: N/A

Instrument ID: MT_025
Lab File ID: 26c053015.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Magnesium	97	94	85 - 113	3	20		

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-279404**

**Method: 6010C
Preparation: 3010A**

MS Lab Sample ID: 280-69589-2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 06/01/2015 1301
Prep Date: 05/29/2015 1445
Leach Date: N/A

Analysis Batch: 280-279916
Prep Batch: 280-279404
Leach Batch: N/A

Instrument ID: MT_025
Lab File ID: 25A060115.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 280-69589-2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 06/01/2015 1303
Prep Date: 05/29/2015 1445
Leach Date: N/A

Analysis Batch: 280-279916
Prep Batch: 280-279404
Leach Batch: N/A

Instrument ID: MT_025
Lab File ID: 25A060115.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Calcium	101	91	87 - 113	4	20		
Iron	107	98	87 - 115	8	20		
Potassium	106	101	86 - 114	4	20		
Sodium	107	96	87 - 115	5	20		

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-279404**

**Method: 6010C
Preparation: 3010A**

MS Lab Sample ID: 280-69589-2 Units: ug/L
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/30/2015 1822
 Prep Date: 05/29/2015 1445
 Leach Date: N/A

MSD Lab Sample ID: 280-69589-2
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/30/2015 1824
 Prep Date: 05/29/2015 1445
 Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Magnesium	9500	50000	50000	57900	56300

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-279404**

**Method: 6010C
Preparation: 3010A**

MS Lab Sample ID: 280-69589-2 Units: ug/L
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/01/2015 1301
 Prep Date: 05/29/2015 1445
 Leach Date: N/A

MSD Lab Sample ID: 280-69589-2
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/01/2015 1303
 Prep Date: 05/29/2015 1445
 Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Calcium	90000	50000	50000	140000	136000
Iron	110	1000	1000	1180	1090
Potassium	1300 J	50000	50000	54300	51900
Sodium	59000	50000	50000	113000	108000

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Serial Dilution - Batch: 280-279404

Method: 6010C
Preparation: 3010A

Lab Sample ID: 280-69589-2	Analysis Batch: 280-279691	Instrument ID: MT_025
Client Matrix: Water	Prep Batch: 280-279404	Lab File ID: 26c053015.asc
Dilution: 5.0	Leach Batch: N/A	Initial Weight/Volume: 50 mL
Analysis Date: 05/30/2015 1819	Units: ug/L	Final Weight/Volume: 50 mL
Prep Date: 05/29/2015 1445		
Leach Date: N/A		

Analyte	Sample Result/Qual	Result	%Diff	Limit	Qual
Magnesium	9500	10100	NC	10	D

Serial Dilution - Batch: 280-279404

Method: 6010C
Preparation: 3010A

Lab Sample ID: 280-69589-2	Analysis Batch: 280-279916	Instrument ID: MT_025
Client Matrix: Water	Prep Batch: 280-279404	Lab File ID: 25A060115.asc
Dilution: 5.0	Leach Batch: N/A	Initial Weight/Volume: 50 mL
Analysis Date: 06/01/2015 1258	Units: ug/L	Final Weight/Volume: 50 mL
Prep Date: 05/29/2015 1445		
Leach Date: N/A		

Analyte	Sample Result/Qual	Result	%Diff	Limit	Qual
Calcium	90000	101000	12	10	V D
Iron	110	163	NC	10	J D
Potassium	1300 J	2140	NC	10	J D
Sodium	59000	65900	NC	10	D

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Method Blank - Batch: 280-280173

Lab Sample ID: MB 280-280173/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/05/2015 1332
 Prep Date: 06/04/2015 0900
 Leach Date: N/A

Analysis Batch: 280-280670
 Prep Batch: 280-280173
 Leach Batch: N/A
 Units: ug/L

Method: 6010C Preparation: 3005A Total Recoverable

Instrument ID: MT_025
 Lab File ID: 25a060515a.asc
 Initial Weight/Volume: 50 mL
 Final Weight/Volume: 50 mL

Analyte	Result	Qual	DL	LOQ
Iron	71.1	J	22	100

Lab Control Sample - Batch: 280-280173

Lab Sample ID: LCS 280-280173/2-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/05/2015 1334
 Prep Date: 06/04/2015 0900
 Leach Date: N/A

Analysis Batch: 280-280670
 Prep Batch: 280-280173
 Leach Batch: N/A
 Units: ug/L

Method: 6010C Preparation: 3005A Total Recoverable

Instrument ID: MT_025
 Lab File ID: 25a060515a.asc
 Initial Weight/Volume: 50 mL
 Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Iron	1000	955	95	87 - 115	

Post Digestion Spike - Batch: 280-280173

Lab Sample ID: 280-69589-2
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 06/05/2015 1347
 Prep Date: 06/04/2015 0900
 Leach Date: N/A

Analysis Batch: 280-280670
 Prep Batch: 280-280173
 Leach Batch: N/A
 Units: ug/L

Method: 6010C Preparation: 3005A Dissolved

Instrument ID: MT_025
 Lab File ID: 25a060515a.asc
 Initial Weight/Volume: 50 mL
 Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Iron	85 U	1000	942	94	80 - 120	

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-280173**

**Method: 6010C
Preparation: 3005A
Dissolved**

MS Lab Sample ID: 280-69589-2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 06/05/2015 1342
Prep Date: 06/04/2015 0900
Leach Date: N/A

Analysis Batch: 280-280670
Prep Batch: 280-280173
Leach Batch: N/A

Instrument ID: MT_025
Lab File ID: 25a060515a.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 280-69589-2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 06/05/2015 1344
Prep Date: 06/04/2015 0900
Leach Date: N/A

Analysis Batch: 280-280670
Prep Batch: 280-280173
Leach Batch: N/A

Instrument ID: MT_025
Lab File ID: 25a060515a.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Iron	97	96	87 - 115	1	20		

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-280173**

**Method: 6010C
Preparation: 3005A
Dissolved**

MS Lab Sample ID: 280-69589-2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 06/05/2015 1342
Prep Date: 06/04/2015 0900
Leach Date: N/A

Units: ug/L

MSD Lab Sample ID: 280-69589-2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 06/05/2015 1344
Prep Date: 06/04/2015 0900
Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Iron	85 U	1000	1000	969	959

Serial Dilution - Batch: 280-280173

**Method: 6010C
Preparation: 3005A
Dissolved**

Lab Sample ID: 280-69589-2
Client Matrix: Water
Dilution: 5.0
Analysis Date: 06/05/2015 1339
Prep Date: 06/04/2015 0900
Leach Date: N/A

Analysis Batch: 280-280670
Prep Batch: 280-280173
Leach Batch: N/A
Units: ug/L

Instrument ID: MT_025
Lab File ID: 25a060515a.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	%Diff	Limit	Qual
Iron	85 U	430	NC	10	U

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Method Blank - Batch: 280-278571

Lab Sample ID: MB 280-278571/10
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/21/2015 1119
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 280-278571
 Prep Batch: N/A
 Leach Batch: N/A
 Units: mg/L

**Method: 7196A
 Preparation: N/A**

Instrument ID: WC_HSPEC_7196
 Lab File ID: N/A
 Initial Weight/Volume: 10 mL
 Final Weight/Volume: 10 mL

Analyte	Result	Qual	DL	LOQ
Chromium, hexavalent	0.0040	U	0.0040	0.020

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 280-278571

**Method: 7196A
 Preparation: N/A**

LCS Lab Sample ID: LCS 280-278571/8
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/21/2015 1119
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 280-278571
 Prep Batch: N/A
 Leach Batch: N/A
 Units: mg/L

Instrument ID: WC_HSPEC_7196
 Lab File ID: N/A
 Initial Weight/Volume: 10 mL
 Final Weight/Volume: 10 mL

LCSD Lab Sample ID: LCSD 280-278571/9
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/21/2015 1119
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 280-278571
 Prep Batch: N/A
 Leach Batch: N/A
 Units: mg/L

Instrument ID: WC_HSPEC_7196
 Lab File ID: N/A
 Initial Weight/Volume: 10 mL
 Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Chromium, hexavalent	99	102	90 - 111	3	20		

Laboratory Control/

Laboratory Duplicate Data Report - Batch: 280-278571

**Method: 7196A
 Preparation: N/A**

LCS Lab Sample ID: LCS 280-278571/8
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/21/2015 1119
 Prep Date: N/A
 Leach Date: N/A

Units: mg/L

LCSD Lab Sample ID: LCSD 280-278571/9
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/21/2015 1119
 Prep Date: N/A
 Leach Date: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Chromium, hexavalent	0.100	0.100	0.0992	0.102

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-278571**

**Method: 7196A
Preparation: N/A**

MS Lab Sample ID: 280-69589-2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/21/2015 1119
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 280-278571
Prep Batch: N/A
Leach Batch: N/A

Instrument ID: WC_HSPEC_7196
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

MSD Lab Sample ID: 280-69589-2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/21/2015 1119
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 280-278571
Prep Batch: N/A
Leach Batch: N/A

Instrument ID: WC_HSPEC_7196
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Chromium, hexavalent	106	108	90 - 111	2	20		

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-278571**

**Method: 7196A
Preparation: N/A**

MS Lab Sample ID: 280-69589-2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/21/2015 1119
Prep Date: N/A
Leach Date: N/A

Units: mg/L

MSD Lab Sample ID: 280-69589-2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/21/2015 1119
Prep Date: N/A
Leach Date: N/A

Analyte	Sample		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
	Result/Qual					
Chromium, hexavalent	0.0040	U	0.100	0.100	0.106	0.108

Duplicate - Batch: 280-278571

**Method: 7196A
Preparation: N/A**

Lab Sample ID: 280-69589-2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/21/2015 1119
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 280-278571
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WC_HSPEC_7196
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Chromium, hexavalent	0.0040 U	0.0040	NC	20	U

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Method Blank - Batch: 280-278518

Method: 9056
Preparation: N/A

Lab Sample ID: MB 280-278518/6	Analysis Batch: 280-278518	Instrument ID: WC_IonChrom11
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 0013.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 05/21/2015 1124	Units: mg/L	Final Weight/Volume: 5 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Result	Qual	DL	LOQ
Nitrate as N	0.10	U	0.042	0.50
Nitrite as N	0.10	U	0.049	0.50

Method Reporting Limit Check - Batch: 280-278518

Method: 9056
Preparation: N/A

Lab Sample ID: MRL 280-278518/3	Analysis Batch: 280-278518	Instrument ID: WC_IonChrom11
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 0010.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 05/21/2015 1024	Units: mg/L	Final Weight/Volume: 5 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N	0.200	0.225	113	50 - 150	J
Nitrite as N	0.200	0.237	119	50 - 150	J

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-278518**

Method: 9056
Preparation: N/A

LCS Lab Sample ID: LCS 280-278518/4	Analysis Batch: 280-278518	Instrument ID: WC_IonChrom11
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 0011.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 05/21/2015 1044	Units: mg/L	Final Weight/Volume: 5 mL
Prep Date: N/A		25 uL
Leach Date: N/A		

LCSD Lab Sample ID: LCSD 280-278518/5	Analysis Batch: 280-278518	Instrument ID: WC_IonChrom11
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 0012.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 05/21/2015 1104	Units: mg/L	Final Weight/Volume: 5 mL
Prep Date: N/A		25 uL
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Nitrate as N	98	98	88 - 111	0	10		
Nitrite as N	99	100	87 - 111	1	10		

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

**Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-278518**

**Method: 9056
Preparation: N/A**

LCS Lab Sample ID: LCS 280-278518/4 Units: mg/L
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/21/2015 1044
 Prep Date: N/A
 Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-278518/5
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/21/2015 1104
 Prep Date: N/A
 Leach Date: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Nitrate as N	5.00	5.00	4.91	4.92
Nitrite as N	5.00	5.00	4.93	4.99

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-278518**

**Method: 9056
Preparation: N/A**

MS Lab Sample ID: 280-69589-2
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/21/2015 1451
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 280-278518
 Prep Batch: N/A
 Leach Batch: N/A

Instrument ID: WC_IonChrom11
 Lab File ID: 0016.d
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL
 25 uL

MSD Lab Sample ID: 280-69589-2
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/21/2015 1511
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 280-278518
 Prep Batch: N/A
 Leach Batch: N/A

Instrument ID: WC_IonChrom11
 Lab File ID: 0017.d
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL
 25 uL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Nitrate as N	101	101	88 - 111	0	10		
Nitrite as N	94	96	87 - 111	2	10		

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-278518**

**Method: 9056
Preparation: N/A**

MS Lab Sample ID: 280-69589-2
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/21/2015 1451
 Prep Date: N/A
 Leach Date: N/A

Units: mg/L

MSD Lab Sample ID: 280-69589-2
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/21/2015 1511
 Prep Date: N/A
 Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Nitrate as N	0.95	5.00	5.00	5.99	5.97
Nitrite as N	0.10 U	5.00	5.00	4.72	4.80

Duplicate - Batch: 280-278518

**Method: 9056
Preparation: N/A**

Lab Sample ID: 280-69589-2
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/21/2015 1431
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 280-278518
 Prep Batch: N/A
 Leach Batch: N/A
 Units: mg/L

Instrument ID: WC_IonChrom11
 Lab File ID: 0015.d
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL
 25 uL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Nitrate as N	0.95	0.946	0.3	10	
Nitrite as N	0.10 U	0.10	NC	10	U

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Method Blank - Batch: 280-278519

**Method: 9056A
Preparation: N/A**

Lab Sample ID: MB 280-278519/6	Analysis Batch: 280-278519	Instrument ID: WC_IonChrom11
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 0013.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 05/21/2015 1124	Units: mg/L	Final Weight/Volume: 5 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Result	Qual	DL	LOQ
Chloride	0.702	J	0.25	3.0
Sulfate	0.50	U	0.23	5.0

Method Reporting Limit Check - Batch: 280-278519

**Method: 9056A
Preparation: N/A**

Lab Sample ID: MRL 280-278519/3	Analysis Batch: 280-278519	Instrument ID: WC_IonChrom11
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 0010.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 05/21/2015 1024	Units: mg/L	Final Weight/Volume: 5 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloride	2.50	2.35	94	50 - 150	J
Sulfate	2.50	2.46	98	50 - 150	J

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-278519**

**Method: 9056A
Preparation: N/A**

LCS Lab Sample ID: LCS 280-278519/4	Analysis Batch: 280-278519	Instrument ID: WC_IonChrom11
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 0011.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 05/21/2015 1044	Units: mg/L	Final Weight/Volume: 5 mL
Prep Date: N/A		25 uL
Leach Date: N/A		

LCSD Lab Sample ID: LCSD 280-278519/5	Analysis Batch: 280-278519	Instrument ID: WC_IonChrom11
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 0012.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 05/21/2015 1104	Units: mg/L	Final Weight/Volume: 5 mL
Prep Date: N/A		25 uL
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Chloride	99	99	87 - 111	0	10		
Sulfate	96	96	87 - 112	0	10		

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

**Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-278519**

**Method: 9056A
Preparation: N/A**

LCS Lab Sample ID: LCS 280-278519/4 Units: mg/L
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/21/2015 1044
 Prep Date: N/A
 Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-278519/5
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/21/2015 1104
 Prep Date: N/A
 Leach Date: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Chloride	100	100	99.2	99.1
Sulfate	100	100	96.5	96.2

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-278519**

**Method: 9056A
Preparation: N/A**

MS Lab Sample ID: 280-69589-2
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/21/2015 1451
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 280-278519
 Prep Batch: N/A
 Leach Batch: N/A

Instrument ID: WC_IonChrom11
 Lab File ID: 0016.d
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL
 25 uL

MSD Lab Sample ID: 280-69589-2
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/21/2015 1511
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 280-278519
 Prep Batch: N/A
 Leach Batch: N/A

Instrument ID: WC_IonChrom11
 Lab File ID: 0017.d
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL
 25 uL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Chloride	103	103	87 - 111	0	10		
Sulfate	95	95	87 - 112	0	10		

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-278519**

**Method: 9056A
Preparation: N/A**

MS Lab Sample ID: 280-69589-2
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/21/2015 1451
 Prep Date: N/A
 Leach Date: N/A

Units: mg/L

MSD Lab Sample ID: 280-69589-2
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/21/2015 1511
 Prep Date: N/A
 Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Chloride	22	25.0	25.0	47.4	47.4
Sulfate	20	25.0	25.0	43.6	43.5

Duplicate - Batch: 280-278519

**Method: 9056A
Preparation: N/A**

Lab Sample ID: 280-69589-2
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/21/2015 1431
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 280-278519
 Prep Batch: N/A
 Leach Batch: N/A
 Units: mg/L

Instrument ID: WC_IonChrom11
 Lab File ID: 0015.d
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL
 25 uL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Chloride	22	21.7	0.4	10	
Sulfate	20	19.9	0.4	10	

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Method Blank - Batch: 280-279244

Method: SM 2320B

Preparation: N/A

Lab Sample ID: MB 280-279244/33	Analysis Batch: 280-279244	Instrument ID: WC-AT3
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 052715 alk.TXT
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume:
Analysis Date: 05/27/2015 1432	Units: mg/L	Final Weight/Volume:
Prep Date: N/A		
Leach Date: N/A		

Analyte	Result	Qual	DL	LOQ
Alkalinity	3.2	U	1.1	5.0
Bicarbonate Alkalinity as CaCO3	3.2	U	1.1	5.0
Carbonate Alkalinity as CaCO3	3.2	U	1.1	5.0

Lab Control Sample/

Method: SM 2320B

Lab Control Sample Duplicate Recovery Report - Batch: 280-279244

Preparation: N/A

LCS Lab Sample ID: LCS 280-279244/31	Analysis Batch: 280-279244	Instrument ID: WC-AT3
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 052715 alk.TXT
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume:
Analysis Date: 05/27/2015 1423	Units: mg/L	Final Weight/Volume:
Prep Date: N/A		
Leach Date: N/A		

LCSD Lab Sample ID: LCSD 280-279244/32	Analysis Batch: 280-279244	Instrument ID: WC-AT3
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 052715 alk.TXT
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume:
Analysis Date: 05/27/2015 1428	Units: mg/L	Final Weight/Volume:
Prep Date: N/A		
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Alkalinity	100	100	90 - 110	0	10		

Laboratory Control/

Method: SM 2320B

Laboratory Duplicate Data Report - Batch: 280-279244

Preparation: N/A

LCS Lab Sample ID: LCS 280-279244/31	Units: mg/L	LCSD Lab Sample ID: LCSD 280-279244/32
Client Matrix: Water		Client Matrix: Water
Dilution: 1.0		Dilution: 1.0
Analysis Date: 05/27/2015 1423		Analysis Date: 05/27/2015 1428
Prep Date: N/A		Prep Date: N/A
Leach Date: N/A		Leach Date: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Alkalinity	200	200	201	201

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Method Blank - Batch: 280-279061

Method: SM 2540C

Preparation: N/A

Lab Sample ID: MB 280-279061/1	Analysis Batch: 280-279061	Instrument ID: WC_Connd_Orion
Client Matrix: Water	Prep Batch: N/A	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 100 mL
Analysis Date: 05/26/2015 1412	Units: mg/L	Final Weight/Volume: 100 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Result	Qual	DL	LOQ
Total Dissolved Solids (TDS)	10	U	4.7	10

Lab Control Sample/

Method: SM 2540C

Lab Control Sample Duplicate Recovery Report - Batch: 280-279061

Preparation: N/A

LCS Lab Sample ID: LCS 280-279061/2	Analysis Batch: 280-279061	Instrument ID: WC_Connd_Orion
Client Matrix: Water	Prep Batch: N/A	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 100 mL
Analysis Date: 05/26/2015 1412	Units: mg/L	Final Weight/Volume: 100 mL
Prep Date: N/A		
Leach Date: N/A		

LCSD Lab Sample ID: LCSD 280-279061/3	Analysis Batch: 280-279061	Instrument ID: WC_Connd_Orion
Client Matrix: Water	Prep Batch: N/A	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 100 mL
Analysis Date: 05/26/2015 1412	Units: mg/L	Final Weight/Volume: 100 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Total Dissolved Solids (TDS)	101	99	86 - 110	2	20		

Laboratory Control/

Method: SM 2540C

Laboratory Duplicate Data Report - Batch: 280-279061

Preparation: N/A

LCS Lab Sample ID: LCS 280-279061/2	Units: mg/L	LCSD Lab Sample ID: LCSD 280-279061/3
Client Matrix: Water		Client Matrix: Water
Dilution: 1.0		Dilution: 1.0
Analysis Date: 05/26/2015 1412		Analysis Date: 05/26/2015 1412
Prep Date: N/A		Prep Date: N/A
Leach Date: N/A		Leach Date: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Total Dissolved Solids (TDS)	501	501	507	497

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Duplicate - Batch: 280-279061

Method: SM 2540C

Preparation: N/A

Lab Sample ID:	280-69589-2	Analysis Batch:	280-279061	Instrument ID:	WC_Cond_Orion
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	05/26/2015 1412	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Dissolved Solids (TDS)	440	432	2	10	

DATA REPORTING QUALIFIERS

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Lab Section	Qualifier	Description
GC/MS VOA	J	Estimated: The analyte was positively identified; the quantitation is an estimation
	M	Manual integrated compound.
	U	Undetected at the Limit of Detection.
Metals	J	Estimated: The analyte was positively identified; the quantitation is an estimation
	V	Serial Dilution exceeds the control limits
	D	The reported value is from a dilution.
	U	Undetected at the Limit of Detection.
General Chemistry	J	Estimated: The analyte was positively identified; the quantitation is an estimation
	U	Undetected at the Limit of Detection.

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:280-279458					
LCS 280-279458/4	Lab Control Sample	T	Water	8260B	
MB 280-279458/6	Method Blank	T	Water	8260B	
280-69589-1TB	54403-TB18-0515	T	Water	8260B	
280-69589-2	54400-MW54-0515	T	Water	8260B	
280-69589-3FD	54401-MW54-0515	T	Water	8260B	
Report Basis					
T = Total					
Metals					
Prep Batch: 280-279404					
LCS 280-279404/2-A	Lab Control Sample	T	Water	3010A	
MB 280-279404/1-A	Method Blank	T	Water	3010A	
280-69589-2	54400-MW54-0515	T	Water	3010A	
280-69589-2MS	Matrix Spike	T	Water	3010A	
280-69589-2MSD	Matrix Spike Duplicate	T	Water	3010A	
Analysis Batch:280-279691					
LCS 280-279404/2-A	Lab Control Sample	T	Water	6010C	280-279404
MB 280-279404/1-A	Method Blank	T	Water	6010C	280-279404
280-69589-2	54400-MW54-0515	T	Water	6010C	280-279404
280-69589-2MS	Matrix Spike	T	Water	6010C	280-279404
280-69589-2MSD	Matrix Spike Duplicate	T	Water	6010C	280-279404
Analysis Batch:280-279916					
LCS 280-279404/2-A	Lab Control Sample	T	Water	6010C	280-279404
MB 280-279404/1-A	Method Blank	T	Water	6010C	280-279404
280-69589-2	54400-MW54-0515	T	Water	6010C	280-279404
280-69589-2MS	Matrix Spike	T	Water	6010C	280-279404
280-69589-2MSD	Matrix Spike Duplicate	T	Water	6010C	280-279404
Prep Batch: 280-280173					
LCS 280-280173/2-A	Lab Control Sample	R	Water	3005A	
MB 280-280173/1-A	Method Blank	R	Water	3005A	
280-69589-2	54400-MW54-0515	D	Water	3005A	
280-69589-2MS	Matrix Spike	D	Water	3005A	
280-69589-2MSD	Matrix Spike Duplicate	D	Water	3005A	
Analysis Batch:280-280670					
LCS 280-280173/2-A	Lab Control Sample	R	Water	6010C	280-280173
MB 280-280173/1-A	Method Blank	R	Water	6010C	280-280173
280-69589-2	54400-MW54-0515	D	Water	6010C	280-280173
280-69589-2MS	Matrix Spike	D	Water	6010C	280-280173
280-69589-2MSD	Matrix Spike Duplicate	D	Water	6010C	280-280173

TestAmerica Denver

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					

Report Basis

D = Dissolved

R = Total Recoverable

T = Total

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-278518					
LCS 280-278518/4	Lab Control Sample	T	Water	9056	
LCSD 280-278518/5	Lab Control Sample Duplicate	T	Water	9056	
MB 280-278518/6	Method Blank	T	Water	9056	
280-69589-2	54400-MW54-0515	T	Water	9056	
280-69589-2DU	Duplicate	T	Water	9056	
280-69589-2MS	Matrix Spike	T	Water	9056	
280-69589-2MSD	Matrix Spike Duplicate	T	Water	9056	
Analysis Batch:280-278519					
LCS 280-278519/4	Lab Control Sample	T	Water	9056A	
LCSD 280-278519/5	Lab Control Sample Duplicate	T	Water	9056A	
MB 280-278519/6	Method Blank	T	Water	9056A	
280-69589-2	54400-MW54-0515	T	Water	9056A	
280-69589-2DU	Duplicate	T	Water	9056A	
280-69589-2MS	Matrix Spike	T	Water	9056A	
280-69589-2MSD	Matrix Spike Duplicate	T	Water	9056A	
Analysis Batch:280-278571					
LCS 280-278571/8	Lab Control Sample	T	Water	7196A	
LCSD 280-278571/9	Lab Control Sample Duplicate	T	Water	7196A	
MB 280-278571/10	Method Blank	T	Water	7196A	
280-69589-2	54400-MW54-0515	T	Water	7196A	
280-69589-2DU	Duplicate	T	Water	7196A	
280-69589-2MS	Matrix Spike	T	Water	7196A	
280-69589-2MSD	Matrix Spike Duplicate	T	Water	7196A	
280-69589-3FD	54401-MW54-0515	T	Water	7196A	
Analysis Batch:280-279061					
LCS 280-279061/2	Lab Control Sample	T	Water	SM 2540C	
LCSD 280-279061/3	Lab Control Sample Duplicate	T	Water	SM 2540C	
MB 280-279061/1	Method Blank	T	Water	SM 2540C	
280-69589-2	54400-MW54-0515	T	Water	SM 2540C	
280-69589-2DU	Duplicate	T	Water	SM 2540C	
Analysis Batch:280-279244					
LCS 280-279244/31	Lab Control Sample	T	Water	SM 2320B	
LCSD 280-279244/32	Lab Control Sample Duplicate	T	Water	SM 2320B	
MB 280-279244/33	Method Blank	T	Water	SM 2320B	
280-69589-2	54400-MW54-0515	T	Water	SM 2320B	

Report Basis

T = Total

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Laboratory Chronicle

Lab ID: 280-69589-1

Client ID: 54403-TB18-0515

Sample Date/Time: 05/20/2015 00:00 Received Date/Time: 05/21/2015 07:10

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-69589-A-1		280-279458		05/29/2015 01:41	1	TAL DEN	BBB
A:8260B	280-69589-A-1		280-279458		05/29/2015 01:41	1	TAL DEN	BBB

Lab ID: 280-69589-2

Client ID: 54400-MW54-0515

Sample Date/Time: 05/20/2015 16:20 Received Date/Time: 05/21/2015 07:10

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-69589-G-2		280-279458		05/29/2015 02:04	1	TAL DEN	BBB
A:8260B	280-69589-G-2		280-279458		05/29/2015 02:04	1	TAL DEN	BBB
P:3010A	280-69589-C-2-A		280-279691	280-279404	05/29/2015 14:45	1	TAL DEN	MLS
A:6010C	280-69589-C-2-A		280-279691	280-279404	05/30/2015 18:16	1	TAL DEN	LLB
P:3010A	280-69589-C-2-A		280-279916	280-279404	05/29/2015 14:45	1	TAL DEN	MLS
A:6010C	280-69589-C-2-A		280-279916	280-279404	06/01/2015 12:55	1	TAL DEN	CRR
P:3005A	280-69589-B-2-A		280-280670	280-280173	06/04/2015 09:00	1	TAL DEN	SUR
A:6010C	280-69589-B-2-A		280-280670	280-280173	06/05/2015 13:37	1	TAL DEN	CRR
A:7196A	280-69589-E-2		280-278571		05/21/2015 11:19	1	TAL DEN	SVC
A:9056	280-69589-D-2		280-278518		05/21/2015 14:12	1	TAL DEN	TLP
A:9056A	280-69589-D-2		280-278519		05/21/2015 14:12	1	TAL DEN	TLP
A:SM 2320B	280-69589-A-2		280-279244		05/27/2015 16:01	1	TAL DEN	CCJ
A:SM 2540C	280-69589-A-2		280-279061		05/26/2015 14:12	1	TAL DEN	SVC

Lab ID: 280-69589-2 MS

Client ID: 54400-MW54-0515

Sample Date/Time: 05/20/2015 16:20 Received Date/Time: 05/21/2015 07:10

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3010A	280-69589-C-2-B MS		280-279691	280-279404	05/29/2015 14:45	1	TAL DEN	MLS
A:6010C	280-69589-C-2-B MS		280-279691	280-279404	05/30/2015 18:22	1	TAL DEN	LLB
P:3010A	280-69589-C-2-B MS		280-279916	280-279404	05/29/2015 14:45	1	TAL DEN	MLS
A:6010C	280-69589-C-2-B MS		280-279916	280-279404	06/01/2015 13:01	1	TAL DEN	CRR
P:3005A	280-69589-B-2-B MS		280-280670	280-280173	06/04/2015 09:00	1	TAL DEN	SUR
A:6010C	280-69589-B-2-B MS		280-280670	280-280173	06/05/2015 13:42	1	TAL DEN	CRR
A:7196A	280-69589-E-2 MS		280-278571		05/21/2015 11:19	1	TAL DEN	SVC
A:9056	280-69589-D-2 MS		280-278518		05/21/2015 14:51	1	TAL DEN	TLP
A:9056A	280-69589-D-2 MS		280-278519		05/21/2015 14:51	1	TAL DEN	TLP

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Laboratory Chronicle

Lab ID: 280-69589-2 MSD

Client ID: 54400-MW54-0515

Sample Date/Time: 05/20/2015 16:20 Received Date/Time: 05/21/2015 07:10

Method	Bottle ID	Run	Analysis		Date Prepared /		Dil	Lab	Analyst
			Batch	Prep Batch	Analyzed				
P:3010A	280-69589-C-2-C MSD		280-279691	280-279404	05/29/2015	14:45	1	TAL DEN	MLS
A:6010C	280-69589-C-2-C MSD		280-279691	280-279404	05/30/2015	18:24	1	TAL DEN	LLB
P:3010A	280-69589-C-2-C MSD		280-279916	280-279404	05/29/2015	14:45	1	TAL DEN	MLS
A:6010C	280-69589-C-2-C MSD		280-279916	280-279404	06/01/2015	13:03	1	TAL DEN	CRR
P:3005A	280-69589-B-2-C MSD		280-280670	280-280173	06/04/2015	09:00	1	TAL DEN	SUR
A:6010C	280-69589-B-2-C MSD		280-280670	280-280173	06/05/2015	13:44	1	TAL DEN	CRR
A:7196A	280-69589-E-2 MSD		280-278571		05/21/2015	11:19	1	TAL DEN	SVC
A:9056	280-69589-D-2 MSD		280-278518		05/21/2015	15:11	1	TAL DEN	TLP
A:9056A	280-69589-D-2 MSD		280-278519		05/21/2015	15:11	1	TAL DEN	TLP

Lab ID: 280-69589-2 DU

Client ID: 54400-MW54-0515

Sample Date/Time: 05/20/2015 16:20 Received Date/Time: 05/21/2015 07:10

Method	Bottle ID	Run	Analysis		Date Prepared /		Dil	Lab	Analyst
			Batch	Prep Batch	Analyzed				
A:7196A	280-69589-E-2 DU		280-278571		05/21/2015	11:19	1	TAL DEN	SVC
A:9056	280-69589-D-2 DU		280-278518		05/21/2015	14:31	1	TAL DEN	TLP
A:9056A	280-69589-D-2 DU		280-278519		05/21/2015	14:31	1	TAL DEN	TLP
A:SM 2540C	280-69589-A-2 DU		280-279061		05/26/2015	14:12	1	TAL DEN	SVC

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Laboratory Chronicle

Lab ID: 280-69589-2 SD

Client ID: 54400-MW54-0515

Sample Date/Time: 05/20/2015 16:20 Received Date/Time: 05/21/2015 07:10

Method	Bottle ID	Run	Analysis		Date Prepared /		Dil	Lab	Analyst
			Batch	Prep Batch	AnalYZed				
P:3010A	280-69589-C-2-A SD ^5		280-279691	280-279404	05/29/2015	14:45	5	TAL DEN	MLS
A:6010C	280-69589-C-2-A SD ^5		280-279691	280-279404	05/30/2015	18:19	5	TAL DEN	LLB
P:3010A	280-69589-C-2-A PDS		280-279691	280-279404	05/29/2015	14:45	1	TAL DEN	MLS
A:6010C	280-69589-C-2-A PDS		280-279691	280-279404	05/30/2015	18:26	1	TAL DEN	LLB
P:3010A	280-69589-C-2-A SD ^5		280-279916	280-279404	05/29/2015	14:45	5	TAL DEN	MLS
A:6010C	280-69589-C-2-A SD ^5		280-279916	280-279404	06/01/2015	12:58	5	TAL DEN	CRR
P:3010A	280-69589-C-2-A PDS		280-279916	280-279404	05/29/2015	14:45	1	TAL DEN	MLS
A:6010C	280-69589-C-2-A PDS		280-279916	280-279404	06/01/2015	13:06	1	TAL DEN	CRR
P:3005A	280-69589-B-2-A SD ^5		280-280670	280-280173	06/04/2015	09:00	5	TAL DEN	SUR
A:6010C	280-69589-B-2-A SD ^5		280-280670	280-280173	06/05/2015	13:39	5	TAL DEN	CRR
P:3005A	280-69589-B-2-A PDS		280-280670	280-280173	06/04/2015	09:00	1	TAL DEN	SUR
A:6010C	280-69589-B-2-A PDS		280-280670	280-280173	06/05/2015	13:47	1	TAL DEN	CRR

Lab ID: 280-69589-3

Client ID: 54401-MW54-0515

Sample Date/Time: 05/20/2015 16:20 Received Date/Time: 05/21/2015 07:10

Method	Bottle ID	Run	Analysis		Date Prepared /		Dil	Lab	Analyst
			Batch	Prep Batch	AnalYZed				
P:5030B	280-69589-B-3		280-279458		05/29/2015	02:26	1	TAL DEN	BBB
A:8260B	280-69589-B-3		280-279458		05/29/2015	02:26	1	TAL DEN	BBB
A:7196A	280-69589-A-3		280-278571		05/21/2015	11:19	1	TAL DEN	SVC

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Laboratory Chronicle

Lab ID: MB

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	MB 280-279458/6		280-279458		05/28/2015 21:10	1	TAL DEN	BBB
A:8260B	MB 280-279458/6		280-279458		05/28/2015 21:10	1	TAL DEN	BBB
P:3010A	MB 280-279404/1-A		280-279691	280-279404	05/29/2015 14:45	1	TAL DEN	MLS
A:6010C	MB 280-279404/1-A		280-279691	280-279404	05/30/2015 18:12	1	TAL DEN	LLB
P:3010A	MB 280-279404/1-A		280-279916	280-279404	05/29/2015 14:45	1	TAL DEN	MLS
A:6010C	MB 280-279404/1-A		280-279916	280-279404	06/01/2015 12:51	1	TAL DEN	CRR
P:3005A	MB 280-280173/1-A		280-280670	280-280173	06/04/2015 09:00	1	TAL DEN	SUR
A:6010C	MB 280-280173/1-A		280-280670	280-280173	06/05/2015 13:32	1	TAL DEN	CRR
A:7196A	MB 280-278571/10		280-278571		05/21/2015 11:19	1	TAL DEN	SVC
A:9056	MB 280-278518/6		280-278518		05/21/2015 11:24	1	TAL DEN	TLP
A:9056A	MB 280-278519/6		280-278519		05/21/2015 11:24	1	TAL DEN	TLP
A:SM 2320B	MB 280-279244/33		280-279244		05/27/2015 14:32	1	TAL DEN	CCJ
A:SM 2540C	MB 280-279061/1		280-279061		05/26/2015 14:12	1	TAL DEN	SVC

Lab ID: LCS

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	LCS 280-279458/4		280-279458		05/28/2015 20:25	1	TAL DEN	BBB
A:8260B	LCS 280-279458/4		280-279458		05/28/2015 20:25	1	TAL DEN	BBB
P:3010A	LCS 280-279404/2-A		280-279691	280-279404	05/29/2015 14:45	1	TAL DEN	MLS
A:6010C	LCS 280-279404/2-A		280-279691	280-279404	05/30/2015 18:14	1	TAL DEN	LLB
P:3010A	LCS 280-279404/2-A		280-279916	280-279404	05/29/2015 14:45	1	TAL DEN	MLS
A:6010C	LCS 280-279404/2-A		280-279916	280-279404	06/01/2015 12:53	1	TAL DEN	CRR
P:3005A	LCS 280-280173/2-A		280-280670	280-280173	06/04/2015 09:00	1	TAL DEN	SUR
A:6010C	LCS 280-280173/2-A		280-280670	280-280173	06/05/2015 13:34	1	TAL DEN	CRR
A:7196A	LCS 280-278571/8		280-278571		05/21/2015 11:19	1	TAL DEN	SVC
A:9056	LCS 280-278518/4		280-278518		05/21/2015 10:44	1	TAL DEN	TLP
A:9056A	LCS 280-278519/4		280-278519		05/21/2015 10:44	1	TAL DEN	TLP
A:SM 2320B	LCS 280-279244/31		280-279244		05/27/2015 14:23	1	TAL DEN	CCJ
A:SM 2540C	LCS 280-279061/2		280-279061		05/26/2015 14:12	1	TAL DEN	SVC

Lab ID: LCSD

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:7196A	LCSD 280-278571/9		280-278571		05/21/2015 11:19	1	TAL DEN	SVC
A:9056	LCSD 280-278518/5		280-278518		05/21/2015 11:04	1	TAL DEN	TLP
A:9056A	LCSD 280-278519/5		280-278519		05/21/2015 11:04	1	TAL DEN	TLP
A:SM 2320B	LCSD 280-279244/32		280-279244		05/27/2015 14:28	1	TAL DEN	CCJ
A:SM 2540C	LCSD 280-279061/3		280-279061		05/26/2015 14:12	1	TAL DEN	SVC

Quality Control Results

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Laboratory Chronicle

Lab ID: MRL

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:9056	MRL 280-278518/3		280-278518		05/21/2015 10:24	1	TAL DEN	TLP
A:9056A	MRL 280-278519/3		280-278519		05/21/2015 10:24	1	TAL DEN	TLP

Lab References:

TAL DEN = TestAmerica Denver

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
Alk daily lcs 00473	06/03/15	05/27/15	Di Water, Lot na	1000 mL	Alk stk std_00008	4 mL	Alkalinity	200 mg/L
.Alk stk std_00008	06/30/15		Fisher, Lot 133281		(Purchased Reagent)		Alkalinity	50 g/L
CR6 ICV int 00898	05/22/15	05/21/15	Di Water, Lot na	100 mL	CR6 Cal std_00006	0.1 mL	Chromium, hexavalent	1 mg/L
.CR6 Cal std_00006	03/01/18		ERA, Lot 290315		(Purchased Reagent)		Chromium, hexavalent	1000 mg/L
CR6 Int cal 00596	05/22/15	05/21/15	Di Water, Lot na	100 mL	CR6 Cal std_00006	0.1 mL	Chromium, hexavalent	1 mg/L
.CR6 Cal std_00006	03/01/18		ERA, Lot 290315		(Purchased Reagent)		Chromium, hexavalent	1000 mg/L
CR6 spike sou 00513	05/22/15	05/21/15	Di Water, Lot na	100 mL	Cr6 ICV Std_00015	1 mL	Chromium, hexavalent	10 mg/L
.Cr6 ICV Std_00015	06/30/18		Hach, Lot A3176		(Purchased Reagent)		Chromium, hexavalent	1000 mg/L
IC CAL cl/so4_00047	05/18/15	05/11/15	Di Water, Lot na	100 mL	IC CL cal_00029	25 mL	Chloride	250 mg/L
.IC CL cal_00029	04/30/16		Ricca, Lot 1410937		IC sulfatecal_00027	25 mL	Sulfate	250 mg/L
.IC sulfatecal_00027	04/30/16		RICCA, Lot 1410971		(Purchased Reagent)		Chloride	1000 mg/L
IC CAL cl/so4_00049	05/26/15	05/19/15	Di Water, Lot na	100 mL	IC CL cal_00031	25 mL	Chloride	250 mg/L
.IC CL cal_00031	03/31/16		Ricca, Lot 2410635		IC sulfatecal_00029	25 mL	Sulfate	250 mg/L
.IC sulfatecal_00029	07/30/16		RICCA, Lot 1502814		(Purchased Reagent)		Chloride	1000 mg/L
IC Cal low_00085	05/19/15	05/12/15	Di Water, Lot NA	100 mL	IC Br cal_00009	5 mL	Bromide	50 mg/L
.IC Br cal_00009	07/31/15		Ricca, Lot 4402289		IC FL cal_00008	5 mL	Fluoride	50 mg/L
.IC FL cal_00008	11/30/15		Ricca, Lot 4405502		IC N02 CAL_00034	5 mL	Nitrite as N	50 mg/L
.IC N02 CAL_00034	09/30/15		RICCA, Lot 2503729		IC N03 cal_00011	5 mL	Nitrate as N	50 mg/L
.IC N03 cal_00011	11/30/15		Ricca, Lot 2406477		IC P04 cal_00010	5 mL	Orthophosphate as P	50 mg/L
.IC P04 cal_00010	04/30/16		Ricca, Lot 4405320		(Purchased Reagent)		Bromide	1000 mg/L
IC Cal low_00087	05/26/15	05/19/15	Di Water, Lot NA	100 mL	IC N02 CAL_00034	5 mL	Nitrite as N	50 mg/L
.IC N02 CAL_00034	09/30/15		RICCA, Lot 2503729		IC N03 cal_00011	5 mL	Nitrate as N	50 mg/L
.IC N03 cal_00011	11/30/15		Ricca, Lot 2406477		(Purchased Reagent)		Nitrite as N	1000 ppm
IC CL ICV_00010	09/17/16		LAB CHEM, Lot D255-04		(Purchased Reagent)		Nitrate as N	1000 mg/L
IC ICV 5_00077	05/27/15	05/20/15	Di Water, Lot na	10 mL	IC NO2 ICV_00010	0.5 mL	Nitrite as N	50 mg/L
.IC NO2 ICV_00010	01/31/17		ERA, Lot 030115		IC NO3 ICV_00006	0.5 mL	Nitrate as N	50 mg/L
.IC NO3 ICV_00006	06/17/15		LAB CHEM, Lot C163-25		(Purchased Reagent)		Nitrite as N	1000 mg/L
IC LCS_00266	05/22/15	05/21/15	Di Water, Lot na	200 mL	IC Cal low_00087	20 mL	Nitrite as N	5 mg/L
.IC Cal low_00087	05/26/15	05/19/15	Di Water, Lot NA	100 mL	IC CL cal_00031	20 mL	Nitrate as N	5 mg/L
..IC N02 CAL_00034	09/30/15		RICCA, Lot 2503729		IC sulfatecal_00029	20 mL	Chloride	100 mg/L
..IC N03 cal_00011	11/30/15		Ricca, Lot 2406477		IC N02 CAL_00034	5 mL	Sulfate	100 mg/L
.IC CL cal_00031	03/31/16		Ricca, Lot 2410635		IC N03 cal_00011	5 mL	Nitrite as N	50 mg/L
					(Purchased Reagent)		Nitrate as N	50 mg/L
					(Purchased Reagent)		Nitrate as N	1000 ppm
					(Purchased Reagent)		Nitrate as N	1000 mg/L
					(Purchased Reagent)		Chloride	1000 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.IC sulfatecal 00029	07/30/16		RICCA, Lot 1502814			(Purchased Reagent)	Sulfate	1000 mg/L
IC SO4 ICV 00014	12/18/16		LabChem, Lot D350-18			(Purchased Reagent)	Sulfate	1000 mg/L
ICMS/MSD WEEK_00321	05/26/15	05/19/15	Di Water, Lot NA	10 mL	IC SPK 6 ANIO_00016	5 mL	Chloride	2499.92 mg/L
							Nitrate as N	499.995 mg/L
							Sulfate	2500.26 mg/L
					IC SPK N02SOL 00008	5 mL	Nitrite as N	499.973 mg/L
.IC SPK 6 ANIO_00016	02/03/16	02/03/15	Di Water, Lot NA	1000 mL	IC MS/MSD CL 00002	8.2424 g	Chloride	4999.84 mg/L
					IC MS/MSD N03 00003	6.0679 g	Nitrate as N	999.99 mg/L
					IC MS/MSD S04 00004	9.0704 g	Sulfate	5000.51 mg/L
..IC MS/MSD CL 00002	01/13/21		FISHER, Lot 091363			(Purchased Reagent)	Chloride	0.6066 g/g
..IC MS/MSD N03 00003	10/02/16		FISHER, Lot 035600			(Purchased Reagent)	Nitrate as N	0.1648 g/g
..IC MS/MSD S04 00004	01/31/19		Fisher, Lot 138741			(Purchased Reagent)	Sulfate	0.5513 g/g
.IC SPK N02SOL 00008	12/30/15	12/30/14	Di Water, Lot na	500 mL	IC MS/MSD N02 00001	2.4628 g	Nitrite as N	999.946 mg/L
..IC MS/MSD N02 00001	06/09/17		fisher, Lot 041304			(Purchased Reagent)	Nitrite as N	0.20301 g/g
ICP CCV_00040	09/01/15	05/28/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	500 mL	ICP ICAL1A_00504	250 mL	Calcium	5 mg/L
							Iron	2.5 mg/L
							Magnesium	20 mg/L
							Potassium	50 mg/L
							Sodium	5 mg/L
.ICP ICAL1A_00504	09/01/15	05/28/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	500 mL	Icp cal std 3_00009	5 mL	Calcium	10 mg/L
							Iron	5 mg/L
							Magnesium	40 mg/L
							Potassium	100 mg/L
							Sodium	10 mg/L
..Icp cal std 3_00009	09/01/15		Inorganic Ventures, Lot H2-MEB541066			(Purchased Reagent)	Calcium	1000 mg/L
							Iron	500 mg/L
							Magnesium	4000 mg/L
							Potassium	10000 mg/L
							Sodium	1000 mg/L
ICP CCV_00042	09/01/15	06/02/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	500 mL	ICP ICAL1A_00506	250 mL	Iron	2.5 mg/L
.ICP ICAL1A_00506	09/01/15	06/02/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	500 mL	Icp cal std 3_00009	5 mL	Iron	5 mg/L
..Icp cal std 3_00009	09/01/15		Inorganic Ventures, Lot H2-MEB541066			(Purchased Reagent)	Iron	500 mg/L
ICP CCVH_00395	09/01/15	05/26/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	500 mL	ICP ICAL2A_00301	250 mL	Iron	50 mg/L
							Sodium	250 mg/L
.ICP ICAL2A_00301	09/01/15	05/26/15	5%HCL/5% HNO3, Lot see reagent log	1000 mL	10000 Fe_00012	10 mL	Iron	100 mg/L
					10000 Na 00040	50 mL	Sodium	500 mg/L
..10000 Fe_00012	11/01/15		Inorganic Ventures, Lot g2-fe04033			(Purchased Reagent)	Iron	10000 mg/L
..10000 Na 00040	01/09/17		Inorganic Ventures, Lot G2-NA03115			(Purchased Reagent)	Sodium	10000 mg/L
ICP CCVH_00396	09/01/15	06/02/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	500 mL	ICP ICAL2A_00302	250 mL	Iron	50 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.ICP ICAL2A_00302	09/01/15	06/02/15	5%HCl/5% HNO3, Lot see reagent log	1000 mL	10000 Fe_00012	10 mL	Iron	100 mg/L
..10000 Fe 00012	11/01/15	Inorganic Ventures, Lot g2-fe04033			(Purchased Reagent)		Iron	10000 mg/L
ICP CRI_00089	05/31/15	05/30/15	5:HNO3/5%HCl, Lot see reagent log	100 mL	ICP RL STD3A_00008	0.1 mL	Calcium	0.2 mg/L
							Iron	0.03 mg/L
							Magnesium	0.2 mg/L
							Potassium	1 mg/L
							Sodium	1 mg/L
.ICP RL STD3A_00008	08/01/15	Inorganic Ventures, Lot h2-meb536076					Calcium	200 mg/L
							Iron	30 mg/L
							Magnesium	200 mg/L
							Potassium	1000 mg/L
							Sodium	1000 mg/L
ICP CRI_00090	06/02/15	06/01/15	5:HNO3/5%HCl, Lot see reagent log	100 mL	ICP RL STD3A_00008	0.1 mL	Calcium	0.2 mg/L
							Iron	0.03 mg/L
							Magnesium	0.2 mg/L
							Potassium	1 mg/L
							Sodium	1 mg/L
.ICP RL STD3A_00008	08/01/15	Inorganic Ventures, Lot h2-meb536076					Calcium	200 mg/L
							Iron	30 mg/L
							Magnesium	200 mg/L
							Potassium	1000 mg/L
							Sodium	1000 mg/L
ICP CRI_00094	06/06/15	06/05/15	5:HNO3/5%HCl, Lot see reagent log	100 mL	ICP RL STD3A_00008	0.1 mL	Iron	0.03 mg/L
.ICP RL STD3A_00008	08/01/15	Inorganic Ventures, Lot h2-meb536076					Iron	30 mg/L
ICP ICSA_00104	01/01/16	05/18/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	250 mL	Icp stk ICSA_00012	25 mL	Al	500 mg/L
							Calcium	500 mg/L
							Iron	200 mg/L
							Magnesium	500 mg/L
.Icp stk ICSA_00012	01/01/16	Inorganic Ventures, Lot H2-MEB525068					Al	5000 mg/L
							Calcium	5000 mg/L
							Iron	2000 mg/L
							Magnesium	5000 mg/L
ICP ICSA_00105	01/01/16	06/02/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	250 mL	Icp stk ICSA_00012	25 mL	Al	500 mg/L
							Calcium	500 mg/L
							Iron	200 mg/L
							Magnesium	500 mg/L
.Icp stk ICSA_00012	01/01/16	Inorganic Ventures, Lot H2-MEB525068					Al	5000 mg/L
							Calcium	5000 mg/L
							Iron	2000 mg/L
							Magnesium	5000 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
ICP ICSAB_00109	06/30/15	05/22/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	250 mL	1000 Tl_00010	2.5 mL	Tl	10 mg/L
					10000 Si_00011	0.25 mL	Si	10 mg/L
					ANALYTES B_00008	2.5 mL	SiO2	21.4 mg/L
							Ag	1 mg/L
							Ba	0.5 mg/L
							Be	0.5 mg/L
							Cd	1 mg/L
							Co	0.5 mg/L
							Cr	0.5 mg/L
							Cu	0.5 mg/L
							Mn	0.5 mg/L
							Ni	1 mg/L
							Pb	1 mg/L
							V	0.5 mg/L
							Zn	1 mg/L
					ICP ISAB STD1_00006	2.5 mL	As	2 mg/L
							B	2 mg/L
							Li	1 mg/L
							Mo	1 mg/L
							Potassium	50 mg/L
Sb	1 mg/L							
Se	5 mg/L							
ICP ISAB STD2_00006	2.5 mL	Sodium	50 mg/L					
		Sr	1 mg/L					
Icp stk ICSA_00012	25 mL	Sn	10 mg/L					
		Ti	1 mg/L					
		Al	500 mg/L					
		Calcium	500 mg/L					
.1000 Tl 00010	11/20/17	Inorganic Ventures, Lot H2-TL02003R	(Purchased Reagent)	Tl	1000 mg/L			
.10000 Si_00011	03/12/16	Inorganic ventures, Lot h2-si03035	(Purchased Reagent)	Si	10000 mg/L			
.ANALYTES B_00008	06/30/15	SPEX, Lot 9-164ypy	(Purchased Reagent)	SiO2	21400 mg/L			
				Ag	100 mg/L			
				Ba	50 mg/L			
				Be	50 mg/L			
				Cd	100 mg/L			
				Co	50 mg/L			
				Cr	50 mg/L			
				Cu	50 mg/L			
				Mn	50 mg/L			
				Ni	100 mg/L			
				Pb	100 mg/L			
				V	50 mg/L			
				Zn	100 mg/L			
.ICP ISAB STD1_00006	09/20/15	High Purity, Lot 1407732	(Purchased Reagent)	As	200 mg/L			
				B	200 mg/L			

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Li	100 mg/L
							Mo	100 mg/L
							Potassium	5000 mg/L
							Sb	100 mg/L
							Se	500 mg/L
							Sodium	5000 mg/L
							Sr	100 mg/L
.ICP ISAB STD2_00006	09/20/15		High Purity, Lot 1407733		(Purchased Reagent)		Sn	1000 mg/L
							Ti	100 mg/L
.Icp stk ICSA_00012	01/01/16		Inorganic Ventures, Lot H2-MEB525068		(Purchased Reagent)		Al	5000 mg/L
							Calcium	5000 mg/L
							Iron	2000 mg/L
							Magnesium	5000 mg/L
ICP ICV_00029	11/05/15	05/22/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	100 mL	Icp ICVL A_00008	1 mL	Calcium	2 mg/L
							Iron	0.25 mg/L
							Magnesium	10 mg/L
							Potassium	20 mg/L
							Sodium	2 mg/L
.Icp ICVL A_00008	11/05/15		High Purity, Lot 1430702		(Purchased Reagent)		Calcium	200 mg/L
							Iron	25 mg/L
							Magnesium	1000 mg/L
							Potassium	2000 mg/L
							Sodium	200 mg/L
ICP ICV_00031	11/05/15	06/02/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	100 mL	Icp ICVL A_00008	1 mL	Iron	0.25 mg/L
.Icp ICVL A_00008	11/05/15		High Purity, Lot 1430702		(Purchased Reagent)		Iron	25 mg/L
ICP ICVH_00222	08/07/15	05/22/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	100 mL	Icp ICVH_00163	1 mL	Iron	80 mg/L
							Sodium	40 mg/L
.Icp ICVH_00163	08/07/15		High Purity, Lot 1421732		(Purchased Reagent)		Iron	8000 mg/L
							Sodium	4000 mg/L
ICP ICVH_00223	07/06/15	05/29/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	100 mL	Icp ICVH_00163	1 mL	Iron	80 mg/L
							Sodium	40 mg/L
.Icp ICVH_00163	08/07/15		High Purity, Lot 1421732		(Purchased Reagent)		Iron	8000 mg/L
							Sodium	4000 mg/L
ICP LLCCV_01472	05/31/15	05/30/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	100 mL	ICP LLCCV-1_00025	1 mL	Calcium	0.2 mg/L
							Iron	0.1 mg/L
							Magnesium	0.2 mg/L
							Potassium	3 mg/L
							Sodium	1 mg/L
.ICP LLCCV-1_00025	12/01/15		Inorganic Ventures, Lot H2-MEB534141		(Purchased Reagent)		Calcium	20 mg/L
							Iron	10 mg/L
							Magnesium	20 mg/L
							Potassium	300 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Sodium	100 mg/L
ICP LLCCV_01473	06/02/15	06/01/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	100 mL	ICP LLCCV-1_00025	1 mL	Calcium	0.2 mg/L
							Iron	0.1 mg/L
							Magnesium	0.2 mg/L
							Potassium	3 mg/L
							Sodium	1 mg/L
.ICP LLCCV-1_00025	12/01/15	Inorganic Ventures, Lot H2-MEB534141			(Purchased Reagent)		Calcium	20 mg/L
							Iron	10 mg/L
							Magnesium	20 mg/L
							Potassium	300 mg/L
							Sodium	100 mg/L
ICP LLCCV_01477	06/06/15	06/05/15	5%/5% HCL/HNO3, Lot SEE LOGBOOK	100 mL	ICP LLCCV-1_00025	1 mL	Iron	0.1 mg/L
.ICP LLCCV-1_00025	12/01/15	Inorganic Ventures, Lot H2-MEB534141			(Purchased Reagent)		Iron	10 mg/L
ICP PDS 1_00010	01/01/16	Inorganic Ventures, Lot H2-MEB546062			(Purchased Reagent)		Iron	100 mg/L
							Magnesium	2000 mg/L
ICP PDS 1_00011	04/01/16	Inorganic Ventures, Lot H2-MEB546062			(Purchased Reagent)		Calcium	2000 mg/L
							Iron	100 mg/L
							Potassium	2000 mg/L
							Sodium	2000 mg/L
ICP SPK 2B_00025	06/01/16	Inorganic Ventures, Lot H2-MEB546154			(Purchased Reagent)		B	100 mg/L
							Mo	100 mg/L
							Sb	50 mg/L
							Si	1000 mg/L
							SiO2	2140 mg/L
							Sn	200 mg/L
							Sulfur	200 mg/L
							Ti	100 mg/L
							Zr	50 mg/L
ICP SPK 3A_00097	06/01/16	Inorganic Ventures, Lot H2-MEB571140			(Purchased Reagent)		Ag	5 mg/L
							Al	200 mg/L
							As	100 mg/L
							Ba	200 mg/L
							Be	5 mg/L
							Bi	200 mg/L
							Calcium	5000 mg/L
							Cd	10 mg/L
							Co	50 mg/L
							Cr	20 mg/L
							Cu	25 mg/L
							Iron	100 mg/L
							Li	100 mg/L
							Magnesium	5000 mg/L
							Mn	50 mg/L
							Ni	50 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							P	1000 mg/L
							Pb	50 mg/L
							Potassium	5000 mg/L
							Se	200 mg/L
							Sodium	5000 mg/L
							Sr	100 mg/L
							Th	100 mg/L
							Tl	200 mg/L
							U	200 mg/L
							V	50 mg/L
							Zn	50 mg/L
MV-2c1eve+AVA_00009	05/31/15	03/02/15	P&T Methanol, Lot 85233	20 mL	MV-567643_00008	400 uL	2-Chloroethyl vinyl ether	40 ug/mL
					MV-568720_00006	405 uL	Acrolein	399.938 ug/mL
					MV-569724_00001	320 uL	Vinyl acetate	80 ug/mL
.MV-567643_00008	02/29/16		RESTEK, Lot A093368				(Purchased Reagent)	
.MV-568720_00006	05/31/15		RESTEK, Lot A0108734				(Purchased Reagent)	
.MV-569724_00001	07/31/15		RESTEK, Lot A0108225				(Purchased Reagent)	
MV-568718-D_00002	12/31/18		RESTEK, Lot A099955				(Purchased Reagent)	
							1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene	250 ug/mL
							TBA-d9 (IS)	5000 ug/mL
MV-ARCH SS A_00042	09/30/15	03/30/15	P&T Methanol, Lot 85233	50 mL	MV-567650_00020	5 mL	1,2-Dichloroethane-d4 (Surr)	250 ug/mL
							4-Bromofluorobenzene (Surr)	250 ug/mL
							Dibromofluoromethane (Surr)	250 ug/mL
							Toluene-d8 (Surr)	250 ug/mL
.MV-567650_00020	08/31/19		Restek, Lot A0105143				(Purchased Reagent)	
							1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
MV-Gas/Ket A_00033	11/14/15	05/14/15	P&T Methanol, Lot 85233	10 mL	MV-567642_00018	160 uL	2-Butanone (MEK)	160 ug/mL
							2-Hexanone	160 ug/mL
							4-Methyl-2-pentanone (MIBK)	160 ug/mL
							Acetone	160 ug/mL
					MV-567645_00019	200 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Dichlorodifluoromethane	40 ug/mL
							Dichlorofluoromethane	40 ug/mL
							Trichlorofluoromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
					MV-567648_00029	800 uL	Cyclohexanone	1600 ug/mL
.MV-567642_00018	02/29/16		RESTEK, Lot A093365				(Purchased Reagent)	
							2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
.MV-567645_00019	09/30/16		RESTEK, Lot A0105755				(Purchased Reagent)	
							Bromomethane	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Dichlorofluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
.MV-567648 00029	12/31/17		RESTEK, Lot A0108012			(Purchased Reagent)	Cyclohexanone	20000 ug/mL
MV-Gas/Ket B_00017	07/07/15	01/07/15	P&T Methanol, Lot 62345	10 mL	MV-567642.sec_00015	160 uL	2-Butanone (MEK)	160 ug/mL
							2-Hexanone	160 ug/mL
							4-Methyl-2-pentanone (MIBK)	160 ug/mL
							Acetone	160 ug/mL
							MV-567645.sec_00017	200 uL	Bromomethane	40 ug/mL
	Chloroethane	40 ug/mL						
	Chloromethane	40 ug/mL						
	Dichlorodifluoromethane	40 ug/mL						
	Trichlorofluoromethane	40 ug/mL						
	Vinyl chloride	40 ug/mL						
.MV-567642.sec_00015	02/28/17		RESTEK, Lot A0101295			(Purchased Reagent)	2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
.MV-567645.sec_00017	11/30/15		RESTEK, Lot A099261			(Purchased Reagent)	Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MV-Main A_00022	07/16/15	01/16/15	P&T Methanol, Lot 62345	25 mL	MV-567641_00014	500 uL	1,1,1,2-Tetrachloroethane	40 ug/mL
							1,1,1-Trichloroethane	40 ug/mL
							1,1,2,2-Tetrachloroethane	40 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	40 ug/mL
							1,1,2-Trichloroethane	40 ug/mL
							1,1-Dichloroethane	40 ug/mL
							1,1-Dichloroethene	40 ug/mL
							1,1-Dichloropropene	40 ug/mL
							1,2,3-Trichlorobenzene	40 ug/mL
							1,2,3-Trichloropropane	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2,4-Trimethylbenzene	40 ug/mL
							1,2-Dibromo-3-Chloropropane	40 ug/mL
							1,2-Dibromoethane	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Dichloroethane	40 ug/mL
							1,2-Dichloropropane	40 ug/mL
							1,3,5-Trimethylbenzene	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3-Dichloropropane	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							1,4-Dioxane	800 ug/mL
							2,2-Dichloropropane	40 ug/mL
							2-Chlorotoluene	40 ug/mL
							3-Chloro-1-propene	40 ug/mL
							4-Chlorotoluene	40 ug/mL
							Acrylonitrile	400 ug/mL
							Benzene	40 ug/mL
							Bromobenzene	40 ug/mL
							Bromochloromethane	40 ug/mL
							Bromodichloromethane	40 ug/mL
							Bromoform	40 ug/mL
							Carbon disulfide	40 ug/mL
							Carbon tetrachloride	40 ug/mL
							Chlorobenzene	40 ug/mL
							Chlorodibromomethane	40 ug/mL
							Chloroform	40 ug/mL
							cis-1,2-Dichloroethene	40 ug/mL
							cis-1,3-Dichloropropene	40 ug/mL
							Cyclohexane	40 ug/mL
							Dibromomethane	40 ug/mL
							Ethyl ether	40 ug/mL
							Ethyl methacrylate	40 ug/mL
							Ethylbenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Hexane	40 ug/mL
							Iodomethane	40 ug/mL
							Isobutyl alcohol	1000 ug/mL
							Isopropylbenzene	40 ug/mL
							m-Xylene & p-Xylene	40 ug/mL
							Methyl acetate	200 ug/mL
							Methyl tert-butyl ether	40 ug/mL
							Methylcyclohexane	40 ug/mL
							Methylene Chloride	40 ug/mL
							n-Butylbenzene	40 ug/mL
							N-Propylbenzene	40 ug/mL
							Naphthalene	40 ug/mL
							o-Xylene	40 ug/mL
							p-Isopropyltoluene	40 ug/mL
							sec-Butylbenzene	40 ug/mL
							Styrene	40 ug/mL
							tert-Butyl alcohol	400 ug/mL
							tert-Butylbenzene	40 ug/mL
							Tetrachloroethene	40 ug/mL
							Tetrahydrofuran	80 ug/mL
							Toluene	40 ug/mL
							trans-1,2-Dichloroethene	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							trans-1,3-Dichloropropene	40 ug/mL
							trans-1,4-Dichloro-2-butene	40 ug/mL
							Trichloroethene	40 ug/mL
					MV-568034_00010	1000 uL	1-Chlorohexane	40 ug/mL
							2-Pentanone	160 ug/mL
							sec-Butyl Alcohol	1200 ug/mL
.MV-567641_00014	02/29/16		RESTEK, Lot A093581		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dibromoethane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							1,4-Dioxane	4000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							3-Chloro-1-propene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chlorodibromomethane	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Cyclohexane	2000 ug/mL
							Dibromomethane	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ethyl ether	2000 ug/mL
							Ethyl methacrylate	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Hexane	2000 ug/mL
							Iodomethane	2000 ug/mL
							Isobutyl alcohol	50000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl acetate	10000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylcyclohexane	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							p-Isopropyltoluene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butyl alcohol	20000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
Tetrahydrofuran	4000 ug/mL							
Toluene	2000 ug/mL							
trans-1,2-Dichloroethene	2000 ug/mL							
trans-1,3-Dichloropropene	2000 ug/mL							
trans-1,4-Dichloro-2-butene	2000 ug/mL							
Trichloroethene	2000 ug/mL							
.MV-568034_00010	01/31/16		RESTEK, Lot A0104827		(Purchased Reagent)		1-Chlorohexane	1000 ug/mL
							2-Pentanone	4000 ug/mL
							sec-Butyl Alcohol	30000 ug/mL
MV-Main B_00009	05/28/15	11/28/14	P&T Methanol, Lot 62345	20 mL	MV-567641.sec_00010	400 uL	1,1,1,2-Tetrachloroethane	40 ug/mL
							1,1,1-Trichloroethane	40 ug/mL
							1,1,2,2-Tetrachloroethane	40 ug/mL
							1,1,2-Trichloroethane	40 ug/mL
							1,1-Dichloroethane	40 ug/mL
							1,1-Dichloroethene	40 ug/mL
							1,1-Dichloropropene	40 ug/mL
							1,2,3-Trichlorobenzene	40 ug/mL
							1,2,3-Trichloropropane	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2,4-Trimethylbenzene	40 ug/mL
							1,2-Dibromo-3-Chloropropane	40 ug/mL
							1,2-Dibromoethane	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Dichloroethane	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichloropropane	40 ug/mL
							1,3,5-Trimethylbenzene	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dichloropropane	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							2,2-Dichloropropane	40 ug/mL
							2-Chlorotoluene	40 ug/mL
							4-Chlorotoluene	40 ug/mL
							Benzene	40 ug/mL
							Bromobenzene	40 ug/mL
							Bromochloromethane	40 ug/mL
							Bromodichloromethane	40 ug/mL
							Bromoform	40 ug/mL
							Carbon disulfide	40 ug/mL
							Carbon tetrachloride	40 ug/mL
							Chlorobenzene	40 ug/mL
							Chlorodibromomethane	40 ug/mL
							Chloroform	40 ug/mL
							cis-1,2-Dichloroethene	40 ug/mL
							cis-1,3-Dichloropropene	40 ug/mL
							Dibromomethane	40 ug/mL
							Ethylbenzene	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Isopropylbenzene	40 ug/mL
							m-Xylene & p-Xylene	40 ug/mL
							Methyl tert-butyl ether	40 ug/mL
							Methylene Chloride	40 ug/mL
							n-Butylbenzene	40 ug/mL
							N-Propylbenzene	40 ug/mL
							Naphthalene	40 ug/mL
							o-Xylene	40 ug/mL
							p-Isopropyltoluene	40 ug/mL
							sec-Butylbenzene	40 ug/mL
							Styrene	40 ug/mL
							tert-Butyl alcohol	400 ug/mL
							tert-Butylbenzene	40 ug/mL
							Tetrachloroethene	40 ug/mL
							Toluene	40 ug/mL
							trans-1,2-Dichloroethene	40 ug/mL
							trans-1,3-Dichloropropene	40 ug/mL
							Trichloroethene	40 ug/mL
.MV-567641.sec_00010	02/29/16		RESTEK, Lot A093733		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dibromoethane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chlorodibromomethane	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							p-Isopropyltoluene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butyl alcohol	20000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration	
					Reagent ID	Volume Added			
							Trichloroethene	2000 ug/mL	
MV-Supp A_00011	06/30/15	02/03/15	P&T Methanol, Lot 85233	10 mL	MV-568036_00007	400 uL	cis-1,4-Dichloro-2-butene	40 ug/mL	
							1,2,3-Trimethylbenzene	40 ug/mL	
							2-Chloro-1,3-butadiene	40 ug/mL	
							2-Nitropropane	80 ug/mL	
							Ethyl acetate	80 ug/mL	
							Isopropyl alcohol	400 ug/mL	
							Methacrylonitrile	400 ug/mL	
					mv-569725_00001	160 uL	Methyl methacrylate	80 ug/mL	
							n-Butanol	1000 ug/mL	
							Acetonitrile	500 ug/mL	
							Ethanol	2000 ug/mL	
							Isopropyl ether	50 ug/mL	
							Propionitrile	500 ug/mL	
							Tert-amyl methyl ether	50 ug/mL	
mv-569728_00001	200 uL	Tert-butyl ethyl ether	50 ug/mL						
.MV-568036_00007	12/31/15		RESTEK, Lot A0104018			(Purchased Reagent)	cis-1,4-Dichloro-2-butene	1000 ug/mL	
.mv-569725_00001	07/31/15		Restek, Lot A0108219				(Purchased Reagent)	1,2,3-Trimethylbenzene	2500 ug/mL
								2-Chloro-1,3-butadiene	2500 ug/mL
								2-Nitropropane	5000 ug/mL
								Ethyl acetate	5000 ug/mL
								Isopropyl alcohol	25000 ug/mL
								Methacrylonitrile	25000 ug/mL
								Methyl methacrylate	5000 ug/mL
								n-Butanol	62500 ug/mL
.mv-569728_00001	01/31/17		RESTEK, Lot A0108216				(Purchased Reagent)	Acetonitrile	25000 ug/mL
								Ethanol	100000 ug/mL
								Isopropyl ether	2500 ug/mL
								Propionitrile	25000 ug/mL
								Tert-amyl methyl ether	2500 ug/mL
	Tert-butyl ethyl ether	2500 ug/mL							
TDS LCS 00536 00055	08/26/15	05/26/15	Di Water, Lot na	1000 mL	NaCl f 00004	0.5007 g	Total Dissolved Solids (TDS)	500.7 mg/L	
.NaCl f 00004	04/14/21		JT Baker, Lot J48622			(Purchased Reagent)	Total Dissolved Solids (TDS)	1 g/g	

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

- November 20, 2014

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec. 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year from the date of opening the sealed TCT bag or after the date given in Sec. 11.3, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

11.3 Lot Expiration Date

- November 20, 2017

- The date after which this CRM/RM should not be used (See Sec. 11.2).

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGTL1
Lot Number: H2-TL02003R
Matrix: 0.7% v/v HNO3
Value/Analyte(s): 1 000 µg/mL Thallium
Starting Material: TINO3
Starting Material Lot#: 1576
Starting Material Purity: 99.9996%



3083481
ID: 1000 TL_00010
Exp: 11/20/17 Prpd: SJS Opn: 01/27/15
1000 TL

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1003 ± 7 µg/mL - no weighted mean
Certified Density: 1.003 g/mL (measured at 20 ± 1 °C)

Assay Information:

Assay Method #1 1003 ± 6 µg/mL
ICP Assay NIST SRM 3158 Lot Number: 993012

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$$

X_a = mean of Assay Method A with standard uncertainty $u_{char a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char b}$

w_a and w_b = the weighting factors for each method calculated using the inverse

square of the variance:

$$w_a = (1/u_{char a})^2 / ((1/u_{char a})^2 + (1/u_{char b})^2)$$

$$w_b = (1/u_{char b})^2 / ((1/u_{char a})^2 + (1/u_{char b})^2)$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a\&b}^2 + u_{bb}^2 + u_{lts}^2 + u_{sts}^2)^{1/2}$$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char a\&b} = [(w_a)^2 (u_{char a})^2 + (w_b)^2 (u_{char b})^2]^{1/2}$ where $u_{char a}$ and $u_{char b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{sts} = short term stability standard uncertainty (transportation)

No correction has been applied for transpiration that will occur after the CRM/RM bottle has been removed from the sealed aluminized bag. See Sec. 7.0 (Instructions for the Correct Use of this Reference Material) for more information.

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.005315	M Er < 0.013288	M Mn < 0.010631	O S < 0.030000	M V < 0.005315
O Al < 0.005000	M Eu < 0.007973	M Mo < 0.005315	M Sb < 0.001328	M W < 0.026577
M As < 0.026577	O Fe < 0.001000	O Na < 0.000100	M Sc < 0.026577	M Y < 0.106311
M Au < 0.007973	M Ga < 0.002657	M Nb < 0.001328	M Se < 0.021262	M Yb < 0.002657
O B < 0.001400	M Gd < 0.002657	M Nd < 0.005315	O Si < 0.003400	O Zn < 0.001054
M Ba < 0.026577	M Ge < 0.015946	O Ni < 0.000900	M Sm < 0.002657	M Zr < 0.013288
M Be < 0.001328	M Hf < 0.005315	n Os <	M Sn < 0.013288	
M Bi < 0.001063	O Hg < 0.012000	O P < 0.002600	M Sr < 0.001328	
O Ca < 0.000639	M Ho < 0.001328	M Pb < 0.003701	M Ta < 0.018604	
O Cd < 0.000794	M In < 0.026577	M Pd < 0.013288	M Tb < 0.000797	
M Ce < 0.013288	M Ir < 0.013288	M Pr < 0.000797	M Te < 0.079733	
M Co < 0.007973	O K < 0.001800	M Pt < 0.005315	M Th < 0.002657	
M Cr < 0.013288	M La < 0.001328	M Rb < 0.002657	M Ti < 0.132889	
M Cs < 0.000797	O Li < 0.000020	M Re < 0.002657	s Tl <	
M Cu < 0.015946	M Lu < 0.001063	M Rh < 0.002657	M Tm < 0.001063	
M Dy < 0.015946	O Mg < 0.000030	M Ru < 0.005315	M U < 0.005315	

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = \text{mean of Assay Method A with standard uncertainty } u_{char a}$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{sts}^2)^{1/2}$$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{sts} = short term stability standard uncertainty (transportation)

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30°C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag keep cap tightly sealed when not in use. Store and use at 20° ± 4°C. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT.

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 204.38 +1 6 Ti(H₂O)₆1+

Chemical Compatibility - Soluble in HCl, HNO₃, and H₂SO₄. Stable with most metals and inorganic anions. The sulfite, thiocyanate and oxalate are moderately soluble; the phosphate and arsenite are slightly soluble and the sulfide is insoluble.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

Ti Containing Samples (Preparation and Solution) -Metal (Best dissolved in HNO₃ which forms chiefly the Ti1+ ion.); Oxide (The thallic oxide is readily soluble in water. The thallic oxide requires high levels of acid); Ores (Carbonate fusion in PtO followed by HCl dissolution); Organic Matrices (Sulfuric/peroxide digestion or dry ash and dissolution in HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 205 amu	2 ppt	N/A	189Os16O
ICP-OES 190.864 nm	0.04 / 0.004 µg/mL	1	V, Tl
ICP-OES 276.787 nm	0.1 / 0.01 µg/mL	1	Ta, V, Fe, Cr
ICP-OES 351.924 nm	0.2 / 0.02 µg/mL	1	Th, Ce, Zr

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 30, 2013

11.2 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.3. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

11.3 Expiration Date

EXPIRES
01/2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Zach Saunders
Product Documentation Technician

Certificate Approved By:

Elizabeth Day
Quality Assurance Specialist

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105)).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGFE10
Lot Number: G2-FE04033
Matrix: 5% (v/v) HNO3
Value/Analyte(s): 10 000 µg/mL Iron
Starting Material: Fe pieces
Starting Material Lot#: 1820
Starting Material Purity: 99.9965%



2942394
ID: 10000 Fe_00012
Exp: 11/01/15 Ppt4: SJS Opn: 10/22/14
10000 Fe IV

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10,009 ± 26 µg/mL weighted m
Certified Density: 1.045 g/mL (measured at 20 ± 1 °C)

Assay Information:

Assay Method #1 10,002 ± 62 µg/mL
ICP Assay NIST SRM 3126a Lot Number: 051031
Assay Method #2 10,010 ± 25 µg/mL
EDTA NIST SRM 928 Lot Number: 928

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$$

X_a = mean of Assay Method A with standard uncertainty $u_{char a}$
 X_b = mean of Assay Method B with standard uncertainty $u_{char b}$
 w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$$w_a = (1/u_{char a})^2 / ((1/u_{char a})^2 + (1/u_{char b})^2)$$

$$w_b = (1/u_{char b})^2 / ((1/u_{char a})^2 + (1/u_{char b})^2)$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a\&b}^2 + u_{bb}^2 + u_{lts}^2 + u_{sts}^2)^{1/2}$$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char a\&b} = [(w_a)^2 (u_{char a})^2 + (w_b)^2 (u_{char b})^2]^{1/2}$ where $u_{char a}$ and $u_{char b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{sts} = short term stability standard uncertainty (transportation)

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = \text{mean of Assay Method A with standard uncertainty } u_{char a}$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{sts}^2)^{1/2}$$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{sts} = short term stability standard uncertainty (transportation)

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.003345	M Er < 0.000669	O Mn 0.085220	O S 0.035508	M V < 0.006691
M Al 0.038180	M Eu < 0.000669	M Mo < 0.066908	M Sb 0.033254	M W < 0.020072
M As < 0.053526	s Fe <	O Na 0.010416	M Sc < 0.001338	M Y < 0.000669
M Au < 0.000669	M Ga < 0.033454	M Nb < 0.013382	M Se < 0.020072	M Yb < 0.000669
O B < 0.012860	M Gd < 0.000669	M Nd < 0.000669	O Si 0.054446	M Zn 0.053575
O Ba < 0.003858	i Ge <	M Ni 0.032761	M Sm < 0.006691	M Zr < 0.006691
O Be < 0.000257	M Hf < 0.003345	n Os <	M Sn < 0.006691	
M Bi < 0.001338	O Hg < 0.007716	i P <	O Sr < 0.001286	
O Ca 0.017991	M Ho < 0.000669	M Pb < 0.003345	M Ta < 0.000669	
M Cd < 0.000669	M In < 0.026763	M Pd < 0.000669	M Tb < 0.000669	
M Ce < 0.001338	M Ir < 0.000669	M Pr < 0.000669	M Te < 0.033454	
M Co 0.018105	O K 0.006628	M Pt < 0.001338	M Th < 0.000669	
O Cr 0.023672	M La < 0.000669	M Rb < 0.000669	O Ti < 0.002572	
M Cs < 0.006691	O Li < 0.000077	M Re < 0.000669	M Tl < 0.000669	
M Cu 0.019952	M Lu < 0.000669	M Rh < 0.000669	M Tm < 0.000669	
M Dy < 0.000669	O Mg 0.001184	M Ru < 0.000669	M U < 0.000669	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Keep tightly sealed when not in use. Store and use at 20 ± 4°C. Do not pipette from the container. Do not return removed aliquots to container.

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 55.85 +3 6 Fe(H2O)63+

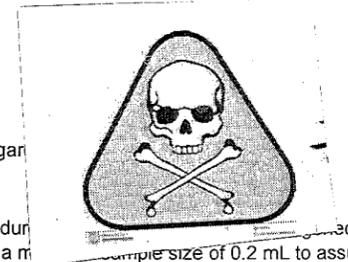
Chemical Compatibility -Stable in HCl, HNO3, H2SO4 ,HF and H3PO4. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO3 / LDPE container.

Fe Containing Samples (Preparation and Solution) - Metal (Soluble in HCl); Oxides (If the oxide has been at a high temperature then Na2CO3 fusion in Pt0 followed by HCl dissolution otherwise dissolve in dilute HCl); Ores (See Oxides above using only the fusion approach).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 56 amu	970 ppt	N/A	40Ar15N1H, 40Ar16O, 36Ar17O1H, 38Ar18O, 37Cl18O1H, 40Ca16O
ICP-OES 238.204 nm	0.005/0.001 µg/mL		
ICP-OES 239.562 nm	0.005/0.001 µg/mL		
ICP-OES 259.940 nm	0.006/0.001 µg/mL		



8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding hazardous.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 09, 2014

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- January 09, 2017

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year from the date of removal from the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being handled and stored in accordance with the instructions given in Sec 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 • USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 • 540.585.3030

fax: 540.585.3012

info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number 010105).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGNA10
Lot Number: G2-NA03115
Matrix: 2% (v/v) HNO3
Value/Analyte(s): 10 000 µg/mL Sodium
Starting Material: Na2CO3
Starting Material Lot#: 1628
Starting Material Purity: 99.9986%



3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9997 ± 18 µg/mL - weighted mean
Certified Density: 1.032 g/mL (measured at 20 ± 1 °C)

Assay Information:

Assay Method #1 10 006 ± 53 µg/mL
ICP Assay NIST SRM 3152a Lot Number: 120715
Assay Method #2 9996 ± 18 µg/mL
Gravimetric NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM by two independent methods

Characterization of CRM by one method

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$$

X_a = mean of Assay Method A with standard uncertainty $u_{char a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$$w_a = (1/u_{char a}^2) / ((1/u_{char a}^2) + (1/u_{char b}^2))$$

$$w_b = (1/u_{char b}^2) / ((1/u_{char a}^2) + (1/u_{char b}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{sts}^2)^{1/2}$$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char a \& b} = [(w_a)^2 (u_{char a}^2) + (w_b)^2 (u_{char b}^2)]^{1/2}$ where $u_{char a}$ and $u_{char b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{sts} = short term stability standard uncertainty (transportation)

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = \text{mean of Assay Method A with standard uncertainty } u_{char a}$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{sts}^2)^{1/2}$$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{sts} = short term stability standard uncertainty (transportation)

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O Ag < 0.000730	M Eu < 0.000962	s Na < 0.000962	M Se < 0.019232	O Zn < 0.000122
O Al 0.006326	O Fe 0.000271	M Nb < 0.000962	O Si 0.016569	O Zr < 0.000608
M As < 0.005769	M Ga < 0.001923	M Nd < 0.000962	M Sm < 0.000962	
M Au < 0.000962	M Gd < 0.000962	O Ni < 0.000486	O Sn < 0.006080	
O B < 0.000973	M Ge < 0.001923	n Os < 0.000151	O Sr 0.000151	
O Ba 0.000452	M Hf < 0.000962	O P < 0.010944	M Ta < 0.000962	
O Be < 0.000061	O Hg < 0.000608	M Pb < 0.002885	M Tb < 0.000962	
M Bi < 0.000962	M Ho < 0.000962	M Pd < 0.000962	M Te < 0.019232	
O Ca 0.075312	M In < 0.000962	M Pr < 0.000962	M Th < 0.002885	
O Cd < 0.000486	M Ir < 0.000962	M Pt < 0.000962	O Ti < 0.000608	
M Ce < 0.002885	O K 0.647684	M Rb < 0.019232	M Tl < 0.000962	
O Co < 0.000973	M La < 0.000962	M Re < 0.000962	M Tm < 0.000962	
O Cr < 0.001824	O Li 0.000060	M Rh < 0.000962	M U < 0.000962	
M Cs < 0.009616	M Lu < 0.000962	M Ru < 0.000962	O V < 0.000608	
O Cu < 0.000851	O Mg 0.009941	O S < 0.121600	M W < 0.000962	
M Dy < 0.000962	O Mn 0.000075	M Sb < 0.000962	M Y < 0.000962	
M Er < 0.000962	O Mo < 0.000608	O Sc < 0.000122	M Yb < 0.000962	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag keep cap tightly sealed when not in use. Store and use at 20° ± 4° C. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 22.99 +1 (6) Na+(aq) largely ionic in nature

Chemical Compatibility -Soluble in HCl, HNO3, H2SO4 and HF aqueous matrices. Stable with all metals and inorganic anions.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO3 / LDPE container.

Na Containing Samples (Preparation and Solution) - Metal (Dissolves very rapidly in water); Ores (Lithium carbonate fusion in graphite crucible followed by HCl dissolution - blank levels of Na in lithium carbonate critical); Organic Matrices (Sulfuric / peroxide digestion or nitric/sulfuric/perchloric acid decomposition).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 23 amu	310 ppt	n/a	46Ti+2, 46Ca+2
ICP-OES 330.237 nm	2.0 / 0.09 µg/mL	1	Pd, Zn
ICP-OES 588.995 nm	0.03 / 0.006 µg/mL	1	2nd order radiation from R.E.s on some optical designs
ICP-OES 589.595 nm	0.07 / 0.00009 µg/mL	1	2nd order radiation from R.E.s on some optical designs

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105)).

**2.0 PRODUCT DESCRIPTION**

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGSI10
Lot Number: H2-SI03035
Matrix: 1% (v/v) HNO₃ / 1.4% (v/v) HF
Value/Analyte(s): 10 000 µg/mL Si
Starting Material: Fumed Silica
Starting Material Lot#: 1771
Starting Material Purity: 99.9931%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10,014 ± 54 µg/mL weighted mean
Certified Density: 1.047 g/mL (measured at 20 ± 1 °C)

Assay Information:

Assay Method #1	10023 ± 61 µg/mL ICP Assay NIST SRM 3150 Lot Number: 071204
Assay Method #2	10004 ± 66 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$$

X_a = mean of Assay Method A with standard uncertainty $u_{char a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$$w_a = (1/u_{char a})^2 / ((1/u_{char a})^2 + (1/u_{char b})^2)$$

$$w_b = (1/u_{char b})^2 / ((1/u_{char a})^2 + (1/u_{char b})^2)$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a\&b}^2 + u_{bb}^2 + u_{lts}^2 + u_{sts}^2)^{1/2}$$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char a\&b} = [(w_a)^2 (u_{char a})^2 + (w_b)^2 (u_{char b})^2]^{1/2}$ where $u_{char a}$ and $u_{char b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{sts} = short term stability standard uncertainty (transportation)

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = \text{mean of Assay Method A with standard uncertainty } u_{char a}$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{sts}^2)^{1/2}$$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{sts} = short term stability standard uncertainty (transportation)

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000504	M Eu < 0.000252	O Na 0.009671	M Se < 0.025180	O Zn < 0.022280
O Al 0.067220	i Fe <	M Nb < 0.001007	s Si <	O Zr < 0.001114
O As < 0.222800	M Ga < 0.000252	M Nd < 0.002014	M Sm < 0.000252	
M Au < 0.000252	M Gd < 0.000252	O Ni < 0.005570	M Sn < 0.003777	
O B 0.123864	O Ge <	n Os <	O Sr < 0.000334	
O Ba 0.000720	M Hf < 0.001259	O P < 0.111400	M Ta < 0.005036	
O Be < 0.000045	i Hg <	M Pb < 0.000252	M Tb < 0.000252	
M Bi < 0.000252	M Ho < 0.000252	M Pd < 0.000252	M Te < 0.003777	
O Ca 0.017436	M In < 0.000252	M Pr < 0.000252	M Th < 0.002518	
M Cd < 0.000252	M Ir < 0.000252	M Pt < 0.000252	O Ti 0.002201	
M Ce < 0.001259	O K 0.045258	M Rb < 0.050360	M Tl < 0.000252	
M Co < 0.000755	M La < 0.000252	M Re < 0.000252	M Tm < 0.000252	
M Cr < 0.003777	O Li < 0.000111	M Rh < 0.000252	M U < 0.000252	
M Cs < 0.002014	M Lu < 0.000252	M Ru < 0.000252	O V < 0.001114	
O Cu < 0.001114	O Mg 0.001729	O S 1.319624	M W < 0.000252	
M Dy < 0.000252	M Mn < 0.007554	M Sb < 0.000252	M Y < 0.000252	
M Er < 0.000252	M Mo < 0.001259	O Sc < 0.000111	M Yb < 0.000252	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag keep cap tightly sealed when not in use. Store and use at 20° ± 4° C. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 28.09 +4 6 Si(OH)x(F)y2-

Chemical Compatibility -Soluble in HCl, HF, H3PO4 H2SO4 and HNO3 as the Si(OH)x(F)y2-. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths, or high levels of transition elements unless they are fluorinated. Stable with most inorganic anions with a tendency to hydrolyze forming silicic acid (silicic acid is soluble up to ~100 ppm in water) in all dilute acids except HF.

Stability - 2-100 ppb levels - stability unknown - (alone or mixed with all other metals) as the Si(OH)x(F)y2-. 1-10,000 ppm single element solutions as the Si(OH)x(F)y2- chemically stable for years in 2-5 % HNO3 / trace HF in a LDPE container.

Si Containing Samples (Preparation and Solution) -Metal (Soluble in 1:1:1 H2O / HF / HNO3); Oxide - SiO2, amorphous (dissolve by heating in 1:1:1 H2O / HF / HNO3); Oxide - quartz (fuse in Pt0 with Na2CO3); Geological Samples(fuse in Pt0with Na2CO3 followed by HCl solution of the fuseate); Organic Matrices containing silicates and non volatile silicon compounds (dry ash at 4500C in Pt0 and dissolve by gently warming with 1:1:1 H2O / HF / H2SO4 or fuse / ash with Na2CO3 and dissolve fuseate with HCl / H2O); Silicone Oils - dimethyl silicones depolymerize to form volatile monomer units when heated (Measure directly in alcoholic KOH / xylene mixture where sample is treated first with the KOH at 60-1000C to "unzip" the Si-O-Si polymeric structure or digest with conc. H2SO4 / H2O2 followed by cooling and dissolution of the dehydrated silica with HF.) Note that the direct analysis of silicone oils in an organic solvent will result in false high results due to high vapor pressure of volatile monomer units like hexamethylcyclotrisiloxane. The KOH forms the K2+Si(CH3)2O= salt which is not volatile at room temperature.

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 28 amu	4000 - 8000 ppt	N/A	N2, 12C16O
ICP-OES 212.412 nm	0.02/0.01 µg/mL	1	Hf, Os, Mo, Ta
ICP-OES 251.611 nm	0.012/0.003 µg/mL	1	Ta, U, Zn, Th
ICP-OES 288.158 nm	0.03/0.004 µg/mL	1	Ta, Ce, Cr, Cd, Th

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 12, 2014

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 12, 2017**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: 3/2/15

- This CRM/RM should not be used longer than one year from the date of removal from the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being handled and stored in accordance with the instructions given in Sec 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

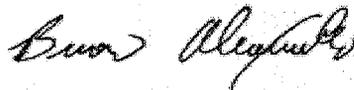
Certificate Prepared By:

Donna Senn
Product Documentation Technician



Certificate Approved By:

Brian Alexander
PhD., Technical Process Director



Certifying Officer:

Paul Gaines
PhD., Senior Technical Director





1 Reagent Lane
 Fair Lawn, NJ 07410
 201.796.7100 tel
 201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by DNV Certificate number CERT-08052-2006-AQ-HOU-ANAB

This is to certify that units of the above mentioned lot number were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	SS148	Mfg. Date	6/11/2013
Lot Number	133281	Expiration Date	Jun/15
Description	SODIUM CARBONATE SOLUTION, 1N		
Country of Origin	United States		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	CLEAR, COLORLESS LIQUID
COLOR	APHA	<= 5	<5
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
NORMALITY		Inclusive Between 0.995 - 1.000	1.000



Edgar E. Hesse

Lab Manager Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.



Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material



Chemical Testing
Cert #2495.02

Catalog Number: INT-B1

Lot No. 9-164YPY

Description: Analytes B

Matrix: 5% HNO₃

This ASSURANCE® Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICP-OES, DCP, AA, ICP-MS, and XRF. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

The CRM is prepared from high purity single element concentrates of individual elements using Class A laboratory ware to give precise concentrations. See side 2 for details of certification.

Instrumental Analysis by ICP Spectrometer:

Analyte	Labeled	Measured	Uncertainty	SRM	Analyte	Labeled	Measured	Uncertainty	SRM
Ag	100 mg/L	101 mg/L	±0.5 mg/L	3151*	Be	50 mg/L	49.9 mg/L	±0.3 mg/L	3105a*
Cd	100 mg/L	101 mg/L	±0.5 mg/L	3108*	Co	50 mg/L	49.8 mg/L	±0.3 mg/L	3113*
Ni	100 mg/L	101 mg/L	±0.5 mg/L	3136*	Cr	50 mg/L	49.8 mg/L	±0.3 mg/L	3112a*
Pb	100 mg/L	100 mg/L	±0.5 mg/L	3128*	Cu	50 mg/L	50.0 mg/L	±0.3 mg/L	3114*
Zn	100 mg/L	100 mg/L	±0.5 mg/L	3168a*	Mn	50 mg/L	50.0 mg/L	±0.3 mg/L	3132*
Ba	50 mg/L	50.8 mg/L	±0.3 mg/L	3104a*	V	50 mg/L	50.5 mg/L	±0.3 mg/L	3165*

* - indicates NIST SRM

† - indicates SPEX CertiPrep CRM (when NIST SRM is not available)

SPEX CertiPrep Reference Multi: Lot# 7-166YP, 22-145JB



2432394

ID: ANALYTES B_00007

Exp: 12/30/14 Prpd: SJS Opn: 12/17/13

ICP ANALYTES B SPEX

Balances are calibrated regularly with weight sets traceable to NIST#s 32856, 32867 and others. This CRM is guaranteed stable and accurate to ±0.5% of the certified (measured) value. This includes uncertainty components due to preparation, measurement, homogeneity, short-term and long-term stability as well as transpiration loss. No measured concentration of any individual component exceeds ±2% of the labeled value. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: DEC 2013 Certifying Officer: *Larry Sinfay*

Report of Certification

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 quality system consistent with the following guides:

- ISO 9001: Quality management systems – Requirements – certified by UL-DQS
- ISO 17025: General requirements for the competence of testing and calibration laboratories – accredited by A2LA
- ISO Guide 34: General requirements for the competence of reference material producers – accredited by A2LA
- ISO Guide 31: Reference Materials – Contents of certificates and labels
- Guide To The Expression Of Uncertainty In Measurement 1997
- EURACHEM/CITAC Guide: Quantifying Uncertainty in Analytical Measurement – Second Edition
- ASTM Guide D6362-98
- NIST Technical Note 1297
- ILAC-G12-2000: Guidelines for the requirements for the competence of reference materials producers
- ISO/REMCO N280

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 guidelines. Vendor identifications are proprietary, however sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For further assistance, please contact the Sales Support Department at crmsales@spexcsp.com.

Instructions for Use:

Primary usage of this CRM is in neat form or diluted serially with matrix of a purity at or greater than the purity of the original matrix solution. If dilution is required the diluent must be compatible with all certified analytes and contain stabilizers appropriate for the period of intended use. The CRM can also be used as a spike or with a spike, again with appropriate compatibility considerations. All solutions should be thoroughly mixed, by shaking, prior to use and never pipetted directly from the bottle. All surfaces that come in contact with the solution must be thoroughly cleaned and leached prior to use. Dilutions should be performed only with Class A volumetric glassware.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, analytical instrumentation and personnel have been qualified prior to use. The highest purity acids applicable, 18 megohm, double deionized water, acid-leached triple-rinsed bottles (where appropriate), and Class A/calibrated volumetrics have been used in all preparations.

Homogeneity:

The homogeneity of the CRM has been confirmed by procedures consistent with ISO 17025:2005, ISO Guide 34:2009, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4600-HOMOGEN-1A. Since the product is highly homogeneous, any sample size taken for analysis would be within the uncertainty budget. This is consistent with the intended use of the CRM.

Statistical Estimator and Confidence Limits:

The certified value 'X' listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where x = measured value, U = expanded uncertainty
 - $U = k u_c$ where $k=2$ is the coverage factor at the 95% confidence level
- U_c is obtained by combining the individual element standard uncertainty components u_i , and $u_c = \sqrt{\sum u_i^2}$

Certification Traveler Report:

All certified values reported were derived from the Traveler Report (SPEX CertiPrep's traceability documentation) identified by the lot number of this CRM. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further assistance, please contact the Sales Support Department at crmsales@spexcsp.com.

Legal Notice:

SPEX CertiPrep reference materials are not for any cosmetic, drug or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against SPEX CertiPrep, Inc. of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep, Inc. be liable for any loss of profits or any incidental, special, or consequential damages.

SPEX CertiPrep 

Your Science is Our Passion.®

203 Norcross Ave, Metuchen, NJ 08840
www.spexcertiprep.com • E-mail: crmsales@spexcsp.com
Phone: 1-800-LAB-SPEX • Fax: 732-603-9647



Standard Verification Form

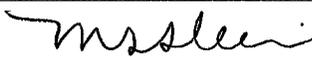
Verification (New vendor or problematic Standard)	<input type="checkbox"/>	Re-Verification	<input checked="" type="checkbox"/>
TALS Reagent Record			
New	<input checked="" type="checkbox"/>	Copied	<input type="checkbox"/>
COA Reviewed against formulary report			<input checked="" type="checkbox"/>

Document instrument verification if need (Initial or re-verification):		
Department	Acceptance Criteria	
	Standard Analytes	Poor Performers* and Esterified Analytes
GC/HPLC	≤ 15 %D	≤ 35 %D or ≤ 50 %D for dinoseb
GCMS/LCMS	≤ 35 %D	≤ 55 %D
MSVOA	≤ 25 %D	≤ 55 %D
Metals	≤ 8 %D	NA
Wet Chemistry	≤ 5 %D	NA

Standard Name	Analytes B	Standard ID	Analytes B_0007	
Verified by	Chris Rhoades	Instrument ID	025	
Verification Date	12/30/14	Method Reference	6010B	
Reference Standard ID	ICAL1A_00450	Batch #	258819	
Analyte/Mix	Prepared Concentration	Verification Concentration	% Diff	Pass/Fail
Analytes B	see raw data			
New Expiration Date:	06/30/15	New TALS ID	Analytes B_0008	
New expiration date can be no greater than 1/2 the designated standards shelf life from the date of re-verification. Standards can only be re-verified one time.				
Comment:	Original container 2432394 Reverified container 3052939			

1st Level Review Chris Rhoades Date: 12/31/14

2nd Level Review Doug Gomer Date: 1/19/15

QA Review (Re-verification only)		Date: <u>1/20/15</u>
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Attach form, supporting documentation and original CoA to new verified or re-verified standard record in TALS.
*See analytical SOP for details on poor performing analytes.



Reagent ID: ANALYTES B_00008

Type:	ASTD	Expiration Date:	06/30/2015
Description:	ICP ANALYTES B SPEX	Laboratory:	TestAmerica Denver
No. of Bottles:	1	Prepared By:	Rhoades, Chris R
Storage Location:	ICP	Vendor:	SPEX
Reagent Volume:	125.000 mL	Vendor Lot #:	9-164ypy
Creation Date:	12/17/2013 -	Vendor Cat #:	INT-B1
Open Date:			
Container(s):	3052939 -		
Comment:			

*original 2432394
Reverified-*

Reagent Analyte Information

Analyte	Source ID	Source Exp. Date	Source Conc.	Source Conc. Units	Final Conc.	Final Conc. Units
Ag					100.00000	mg/L
Ba					50.00000	mg/L
Be					50.00000	mg/L
Cd					100.00000	mg/L
Co					50.00000	mg/L
Cr					50.00000	mg/L
Cu					50.00000	mg/L
Mn					50.00000	mg/L
Ni					100.00000	mg/L
Pb					100.00000	mg/L
V					50.00000	mg/L
Zn					100.00000	mg/L

*Needs
Reverification
Form, approved by QA
and Raw data*

Sample Name: analyte: B-0007@100 Acquired: 12/30/2014 16:46:12 Type: Unk

Method: 6500_025(v13) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment: Recertification

	99				102	92			100
Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .98898 ✓	.00145	.00668	.00392	.51084 ✓	.45837 ✓	.00057	.00725	1.0010 ✓
Stddev	.00265	.00021	.00461	.00020	.00575	.00534	.00499	.00282	.0000
%RSD	.26778	14.182	69.004	5.0628	1.1249	1.1660	874.54	38.813	.00233

#1	.98711	.00130	.00342	.00406	.51491	.46215	-.00296	.00925	1.0010
#2	.99085	.00159	.00994	.00378	.50678	.45459	.00410	.00526	1.0010

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.10000								
Low Limit	-.01000	103 ok 11514	100						

	105							98	
Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52456 ✓	W .51477 ✓	.50181 ✓	.01265	.12907	-.00305	.01042	.48976 ✓	.00013
Stddev	.00307	.00134	.00132	.00276	.04376	.00345	.00788	.00068	.00004
%RSD	.58602	.26101	.26297	21.831	33.903	113.06	75.611	1.3953	31.394

#1	.52673	.51572	.50088	.01461	.16001	-.00549	.01599	.48928	.00016
#2	.52238	.51382	.50274	.01070	.09813	-.00061	.00485	.49025	.00010

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

		103		106					
Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.28231	1.0331 ✓	.00147	1.0577 ✓	.00246	-.00058	-.00018	-.02192	-.04690
Stddev	.02349	.0001	.00058	.0074	.00155	.00219	.00275	.01088	.02328
%RSD	8.3221	.00823	39.622	.70015	62.840	378.16	1503.5	49.634	49.634

#1	.29892	1.0330	.00188	1.0630	.00355	.00097	.00176	-.02961	-.06336
#2	.26570	1.0332	.00106	1.0525	.00137	-.00212	-.00212	-.01422	-.03044

Check ?	Chk Pass								
High Limit									
Low Limit									

						98	98		
Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00058	.00020	-.00032	-.00038	-.00237	-.03570	.49452 ✓	.97853 ✓	.00177
Stddev	.00115	.00004	.00180	.00022	.00167	.01524	.00008	.00230	.00127
%RSD	197.81	19.306	570.27	58.378	70.376	42.692	.01696	.23478	71.985

#1	-.00139	.00017	-.00159	-.00022	-.00119	-.04648	.49458	.97690	.00087
#2	-.00023	.00023	.00096	-.00054	-.00355	-.02493	.49446	.98015	.00266

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3179.9	46754.	5049.1
Stddev	8.8	60.	41.4
%RSD	.27756	.12731	.81940

#1	3173.7	46712.	5019.8
#2	3186.2	46796.	5078.3



SPEXertificate®

Certificate of Reference Material



Catalog Number: INT-B1

Lot No. 9-164YPY

Description: Analytes B

Matrix: 5% HNO₃

This ASSURANCE® Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICP-OES, DCP, AA, ICP-MS, and XRF. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

The CRM is prepared from high purity single element concentrates of individual elements using Class A laboratory ware to give precise concentrations. See side 2 for details of certification.

Instrumental Analysis by ICP Spectrometer:

Analyte	Labeled	Measured	Uncertainty	SRM	Analyte	Labeled	Measured	Uncertainty	SRM
Ag	100 mg/L	101 mg/L	±0.5 mg/L	3151*	Be	50 mg/L	49.9 mg/L	±0.3 mg/L	3105a*
Cd	100 mg/L	101 mg/L	±0.5 mg/L	3108*	Co	50 mg/L	49.8 mg/L	±0.3 mg/L	3113*
Ni	100 mg/L	101 mg/L	±0.5 mg/L	3136*	Cr	50 mg/L	49.8 mg/L	±0.3 mg/L	3112a*
Pb	100 mg/L	100 mg/L	±0.5 mg/L	3128*	Cu	50 mg/L	50.0 mg/L	±0.3 mg/L	3114*
Zn	100 mg/L	100 mg/L	±0.5 mg/L	3168a*	Mn	50 mg/L	50.0 mg/L	±0.3 mg/L	3132*
Ba	50 mg/L	50.8 mg/L	±0.3 mg/L	3104a*	V	50 mg/L	50.5 mg/L	±0.3 mg/L	3165*

* - indicates NIST SRM

† - indicates SPEX CertiPrep CRM (when NIST SRM is not available)

SPEX CertiPrep Reference Multi: Lot# 7-166YP, 22-145JB

2432394
 ID: ANALYTES B_00007
 Exp: 12/30/14 Prep: SJS Opn: 12/17/13
 ICP ANALYTES B SPEX

Balances are calibrated regularly with weight sets traceable to NIST#s 32856, 32867 and others. This CRM is guaranteed stable and accurate to ±0.5% of the certified (measured) value. This includes uncertainty components due to preparation, measurement, homogeneity, short-term and long-term stability as well as transpiration loss. No measured concentration of any individual component exceeds ±2% of the labeled value. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: DEC 2013 Certifying Officer: [Signature]

Report of Certification

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 quality system consistent with the following guides:

- ISO 9001: Quality management systems – Requirements – certified by UL-DQS
- ISO 17025: General requirements for the competence of testing and calibration laboratories – accredited by A2LA
- ISO Guide 34: General requirements for the competence of reference material producers – accredited by A2LA
- ISO Guide 31: Reference Materials – Contents of certificates and labels
- Guide To The Expression Of Uncertainty In Measurement 1997
- EURACHEM/CITAC Guide: Quantifying Uncertainty in Analytical Measurement – Second Edition
- ASTM Guide D6362-98
- NIST Technical Note 1297
- ILAC-G12-2000: Guidelines for the requirements for the competence of reference materials producers
- ISO/REMCO N280

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 guidelines. Vendor identifications are proprietary, however sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For further assistance, please contact the Sales Support Department at crmsales@spexcsp.com.

Instructions for Use:

Primary usage of this CRM is in neat form or diluted serially with matrix of a purity at or greater than the purity of the original matrix solution. If dilution is required the diluent must be compatible with all certified analytes and contain stabilizers appropriate for the period of intended use. The CRM can also be used as a spike or with a spike, again with appropriate compatibility considerations. All solutions should be thoroughly mixed, by shaking, prior to use and never pipetted directly from the bottle. All surfaces that come in contact with the solution must be thoroughly cleaned and leached prior to use. Dilutions should be performed only with Class A volumetric glassware.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, analytical instrumentation and personnel have been qualified prior to use. The highest purity acids applicable, 18 megohm, double deionized water, acid-leached triple-rinsed bottles (where appropriate), and Class A/calibrated volumetrics have been used in all preparations.

Homogeneity:

The homogeneity of the CRM has been confirmed by procedures consistent with ISO 17025:2005, ISO Guide 34:2009, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4600-HOMOGEN-1A. Since the product is highly homogeneous, any sample size taken for analysis would be within the uncertainty budget. This is consistent with the intended use of the CRM.

Statistical Estimator and Confidence Limits:

The certified value 'X' listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = \bar{x} \pm U$ where \bar{x} = measured value, U = expanded uncertainty
 - $U = k u_c$ where $k=2$ is the coverage factor at the 95% confidence level
- U_c is obtained by combining the individual element standard uncertainty components u_i , and $u_c = \sqrt{\sum u_i^2}$

Certification Traveler Report:

All certified values reported were derived from the Traveler Report (SPEX CertiPrep's traceability documentation) identified by the lot number of this CRM. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further assistance, please contact the Sales Support Department at crmsales@spexcsp.com.

Legal Notice:

SPEX CertiPrep reference materials are not for any cosmetic, drug or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against SPEX CertiPrep, Inc. of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep, Inc. be liable for any loss of profits or any incidental, special, or consequential damages.

SPEX CertiPrep®

Your Science is Our Passion.®

203 Norcross Ave, Metuchen, NJ 08840
www.spexcertiprep.com • E-mail: crmsales@spexcsp.com
Phone: 1-800-LAB-SPEX • Fax: 732-603-9647



Certificate of Analysis

PRODUCT: 1000 mg/L Hexavalent Chromium
CATALOG NUMBER: 019
LOT NUMBER: 290315
ISSUE DATE: April 7, 2015
REVISION DATE: Original

STARTING MATERIAL: Potassium Dichromate ($K_2Cr_2O_7$)
CERTIFIED CONCENTRATION¹: 1000 mg/L
UNCERTAINTY²: 0.6%
MATRIX: 18 megohm deionized water
DENSITY: 0.9992 ± 0.0008 g/mL at 21.5°C and 766 mm Hg

TRACEABILITY³: 103%
NIST/SRM: SRM 136f Potassium Dichromate
VERIFICATION METHOD: Spectrophotometry
STORAGE: Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.
2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation and internal analytical verification of the product by ERA, multiplied by a coverage factor which is equal to the student t factor at a 95% confidence interval at n-1 degrees of freedom. The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.
3. Traceability Recovery = ((% Recovery certified standard)/(% Recovery NIST SRM))*100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs.

This standard **expires 3/2018**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Tom Widera

ISO/IEC GUIDE 34:2009



REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005



CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

Certificate of Analysis List

For request number 571942

Catalog Number Entered	Lot Number Entered	Related Catalog Number	Related Lot Code	Description
1466442 1000	3176	N/A	N/A	Chromium Reference Standard Solution

Total Enclosures: 1



An ISO 9001 Certified Company

Certificate of Analysis

COMMODITY: **Chromium Reference Standard Solution 1000**

COMMODITY NUMBER: **14664-42**

MANUFACTURE DATE:

DATE OF ANALYSIS:

LOT NUMBER: **A3176**

6/24/2013

6/24/2013

<i>TEST</i>	<i>SPECIFICATIONS</i>	<i>RESULTS</i>
Hexavalent Chromium Concentration	995 to 1005 ppm	1002.0 ppm
pH of the solution	12 to 14	12.5

The expiration date is Jun 2018

The item 1466442 is traceable to NIST standards SRM 136f Potassium Dichromate LOT N/A.

Certified by _____

Scott Als
Analytical Services Chemist



RICCA CHEMICAL COMPANY

Arlington, TX 76012
Pocomoke City, MD 21851
Batesville, IN 47006

<http://www.riccachemical.com>
1-888-GO-RICCA

customerservice@riccachemical.com

Certificate of Analysis

Bromide Standard, 1 mL = 1 mg Br-, 1000 ppm Br-

Lot Number: 4402289

Product Number: 1180

Expiration Date: JUL 2015

Manufacture Date: 2/10/2014

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Contains:

Name	CAS#	Grade
Sodium Bromide, NaBr	7647-15-6	High Purity
Water, Deionized, H2O	7732-18-5	ACS, ASTM D 1193 (Type I), EP, USP

Test Name	Assay Method	Specification	Result
Appearance	Clarity, Color, Odor	Clear, colorless, odorless	Passed Test
Certified Concentration	Based on accurate volumetric preparation	1000 ± 5 ppm Br	1000 ppm Br

Specification	Reference	Method Number
Bromide Solution, Standard (1 mL = 1 mg Br-)	ASTM	D 3869 D
Standard Bromide Solution, 1000 mg/L	APHA	4110 B
Bromide Stock Solution (1.00 mL = 1.00 mg Br-)	EPA (SW-846)	9056
Sodium Bromide Standard Solution, 1000 mg/L	ASTM	D 1246
Bromide Stock Solution (1.00 mL = 1.00 mg Br?)	ASTM	D 4327

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Shelf Life (unopened container):

Part Number	Shelf Life
1180-4	18 months
1180-8	18 months
1180-16	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)


LaNelle Ohlhausen
Quality Assurance

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials – Contents of Certificates and Labels."

To determine manufacture site using lot number, visit <http://www.riccachemical.com/Documents/lot.pdf>.

Certificate of Analysis

Chloride Standard, 1000 ppm Cl⁻ (0.0282 Normal)
Lot Number: 1410937

Product Number: 1955

Manufacture Date: 10/14/2014

Expiration Date: APR 2016

Name	CAS#	Grade
Sodium Chloride	7647-14-5	ACS
Water, Deionized	7732-18-5	ACS, ASTM D 1193 (Type I), EP, USP

Test	Specification	Result	NIST SRM#
Appearance, Clarity, Color, Odor	Clear, colorless, odorless	Passed Test	
Assay at 20 °C (traceable to NIST SRM 999), Titrimetric vs. Silver Nitrate (Potassium Chromate Indicator)	1000 ± 1 ppm Cl ⁻	1001 ppm Cl ⁻	

Specification	Reference
Chloride Solution Stock (1.00 mL = 1.00 mg chloride)	ASTM (D 5542)
Chloride Solution, Stock (1000 mg/L)	ASTM (D 512 C)
Standard Chloride Solution, 1000 mg/L	APHA (4110 B)
Stock Chloride Solution	APHA (4500-Cl- E)
Sodium Chloride Calibration Standard (1 µg Cl ⁻ /µL)	EPA (SW-846) (9023)
Sodium Chloride Calibration Standard (1 µg Cl ⁻ /µL)	EPA (SW-846) (9021)
Chloride Stock Solution (1.00 mL = 1.00 mg Cl ⁻)	EPA (SW-846) (9056)
Sodium Chloride, NaCl, stock standard solution	EPA (SW-846) (9057)
Chloride Calibration Stock Solution (1,000 mg/L Cl ⁻)	EPA (SW-846) (9212)
Chloride solution (1000 ppm)	TAPPI (T 700 om-93)
Chloride solution (1000 ppm)	TAPPI (T 699 om-87)
Sodium Chloride Solution, 1 mL = 1 mg Cl ⁻	ASTM (D 4458)
Chloride Stock Solution (1.00 mL = 1.00 mg Cl ⁻)	ASTM (D 4327)
Chloride Solution, Stock (1.00 mL = 1.00 mg Cl ⁻)	ASTM (D 5996)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1955-4	120 mL natural poly	18 months
1955-32	1 L natural poly	18 months
1955-8	250 mL natural poly	18 months
1955-1	4 L natural poly	18 months
1955-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Katie Schnur
Quality Control Manager

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference
Materials -- Contents of Certificates and Labels."

Certificate of Analysis

Chloride Standard, 1000 ppm Cl⁻ (0.0282 Normal)
Lot Number: 2410635

Product Number: 1955

Manufacture Date: 10/6/2014

Expiration Date: MAR 2016

Name	CAS#	Grade
Sodium Chloride	7647-14-5	ACS
Water, Deionized	7732-18-5	ACS, ASTM D 1193 (Type I), EP, USP

Test	Specification	Result	NIST SRM#
Appearance, Clarity, Color, Odor	Clear, colorless, odorless	Passed Test	
Assay at 20 °C (traceable to NIST SRM 999), Titrimetric vs. Silver Nitrate (Potassium Chromate Indicator)	1000 ± 1 ppm Cl ⁻	1001 ppm Cl ⁻	

Specification	Reference
Chloride Solution Stock (1.00 mL = 1.00 mg chloride)	ASTM (D 5542)
Chloride Solution, Stock (1000 mg/L)	ASTM (D 512 C)
Standard Chloride Solution, 1000 mg/L	APHA (4110 B)
Stock Chloride Solution	APHA (4500-Cl- E)
Sodium Chloride Calibration Standard (1 µg Cl ⁻ /µL)	EPA (SW-846) (9023)
Sodium Chloride Calibration Standard (1 µg Cl ⁻ /µL)	EPA (SW-846) (9021)
Chloride Stock Solution (1.00 mL = 1.00 mg Cl ⁻)	EPA (SW-846) (9056)
Sodium Chloride, NaCl, stock standard solution	EPA (SW-846) (9057)
Chloride Calibration Stock Solution (1,000 mg/L Cl ⁻)	EPA (SW-846) (9212)
Chloride solution (1000 ppm)	TAPPI (T 700 om-93)
Chloride solution (1000 ppm)	TAPPI (T 699 om-87)
Sodium Chloride Solution, 1 mL = 1 mg Cl ⁻	ASTM (D 4458)
Chloride Stock Solution (1.00 mL = 1.00 mg Cl ⁻)	ASTM (D 4327)
Chloride Solution, Stock (1.00 mL = 1.00 mg Cl ⁻)	ASTM (D 5996)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1955-4	120 mL natural poly	18 months
1955-32	1 L natural poly	18 months
1955-8	250 mL natural poly	18 months
1955-1	4 L natural poly	18 months
1955-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Katie Schnur
Quality Control Manager

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CERTIFICATE OF ANALYSIS

Description: CHLORIDE STANDARD, 1000ppm (1mL = 1mg) (0.0282N)

Catalog Number: LC13000

Mfg Date: 09/17/2014

Lot Number: D255-04

Expiration Date: 09/17/2016

ANALYTICAL SECTION

Test	Specification	Test Result
Appearance	clear, colorless solution	Pass Test
Concentration ppm	1000ppm +/- 5ppm	997ppm
Concentration mg Cl/ml	1.000 +/- 0.005 mg Cl/mL	0.997 mg Cl/mL
Normality	0.0282N +/- 0.0002N	0.0281N
Traceable to NIST	Potassium Chloride	999b

Submitted By: Greg Albright, Chemist Supervisor

An ISO9001:2008 certified company. Registration # 0306-01

12/17/2014 2:07:11 PM

Form #17.12 06/19/2012

Page 1 of 1

Certificate of Analysis

Fluoride Standard, 1 mL = 1 mg F-, 1000 ppm F-

Lot Number: 4405502 Product Number: 3173 Expiration Date: NOV 2015 Manufacture Date: 5/14/2014

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

The concentration is confirmed by Fluoride ISE and is certified traceable to NIST SRM 2203.

Contains:

Name	CAS#	Grade
Sodium Fluoride, NaF	7681-49-4	High Purity
Water, Deionized, H ₂ O	7732-18-5	ACS, ASTM D 1193 (Type I), EP, USP

Test Name	Assay Method	Specification	Result
Appearance	Clarity, Color, Odor	Clear, colorless, odorless	Passed Test
Certified Concentration	Based on accurate volumetric preparation	1,000 ± 5 ppm F-	1,000 ppm F-

Specification	Reference	Method Number
Fluoride Solution, Stock (1.00 mL = 1.00 mg F)	ASTM	D 5542
Fluoride Stock Solution (1.00 mL = 1.00 mg F-)	EPA (SW-846)	9056
Fluoride Calibration Stock Solution (1,000 mg/L F-)	EPA (SW-846)	9214
Stock Solution, 1.0 mL = 1.0 mg F	EPA	340.3
Fluoride Solution, Stock (1.00 mL = 1.00 mg F)	ASTM	D 5996
Fluoride Stock Solution (1.00 mL = 1.00 mg F?)	ASTM	D 4327
Fluoride Stock Standard Solution (1 mg of F in 1 mL)	ACS	N/A

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Shelf Life (unopened container):

Part Number	Shelf Life
3173-4	18 months
3173-32	18 months
3173-8	18 months
3173-16	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



LaNelle Ohlhausen
 Quality Assurance

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

To determine manufacture site using lot number, visit <http://www.riccachemical.com/Documents/lot.pdf>.



1 Reagent Lane
Fairlawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2000 standard by DNV Certificate number CERT-08052-2006-AQ-HOU-ANAB

This is to certify that units of the above mentioned lot number were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	S271	Mfg. Date	5/20/2009
Lot Number	091363		
Description SODIUM CHLORIDE, CERTIFIED A.C.S.			
Country of Origin	United States		
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	FINE WHITE CRYSTALS
ASSAY	%	>= 99.0	99.7
BARIUM (Ba)	PASS/FAIL	= PASS TEST	PASS TEST
BROMIDE	%	<= 0.01	<0.010
CALCIUM	%	<= 0.002	0.0004
CHLORATE & NITRATE	%	<= 0.003	0.0003
HEAVY METALS (as Pb)	ppm	<= 5	<5.0
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.005	0.001
IODIDE	%	<= 0.002	<0.0020
IRON (Fe)	ppm	<= 2	<2.0
MAGNESIUM	%	<= 0.001	0.0005
PH 5% SOLN @ 25 DEG C		Inclusive Between 5.0 9.0	5.6
PHOSPHATE (PO4)	ppm	<= 5	<5.0
POTASSIUM (K)	%	<= 0.005	0.003
SULFATE (SO4)	%	<= 0.004	<0.0040

Residual Solvents	No Class 1, Class 2, or Class 3 solvents are used in the manufacturing, processing, or subsequent handling of this product.
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Edgar E. Hane

Lab Manager Fairlawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.



1 Reagent Lane
 Fairlawn, NJ 07410
 201.796.7100 tel
 201.796.1329 fax

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Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2000 standard by DNV Certificate number CERT-08052-2006-AQ-HOU-ANAB

This is to certify that units of the above mentioned lot number were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	S347	Mfg. Date	4/13/2004 0:0:0
Lot Number	041304	Sample Id	S347..041304.100
Product Description	SODIUM NITRITE, A.C.S.		

Result Name	Units	Specifications	Test Value
INSOLUBLE MATTER	%	0.01 Maximum	0.0010
IDENTIFICATION	PASS/FAIL	Pass test	PASS
HEAVY METALS(AS Pb)	%	0.001 Maximum	0.0004
CHLORIDE	%	0.005 Maximum	0.0040
SULFATE (SO4)	%	0.01 Maximum	0.0060
POTASSIUM	%	0.005 Maximum	0.00040
ASSAY	%	97 Minimum	99.7000
APPEARANCE	REPORT	Yellow-white crystals	YELLOWISH WHITE FINE CRYSTALS
IRON	%	0.001 Maximum	0.00020
CALCIUM IN %	%	0.01 Maximum	0.0002

CERTIFIED BY

Lab Manager Fair Lawn

Lab Manager BPF

Note: The date listed is valid for all package sizes of this lot of product, expressed as an extension of the catalog number listed above. If there are any questions with this certificate, please contact your account manager.



1 Reagent Lane
 Fairlawn, NJ 07410
 201.796.7100 tel
 201.796.1329 fax

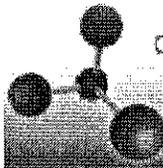
Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2000 standard by DNV Certificate number CERT-08052-2006-AQ-HOU-ANAB

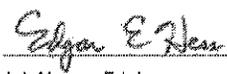
This is to certify that units of the above mentioned lot number were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	S343	Mfg. Date	10/16/2003 0:0:0
Lot Number	035600	Sample Id	S343..035600.B1.
Product Description	SODIUM NITRATE, A.C.S.		

Result Name	Units	Specifications	Test Value
NITRITE	%	0.001 Maximum	<0.00010
MAGNESIUM IN %	%	0.002 Maximum	0.0002
IRON (Fe)	PPM	3 Maximum	0.600
IODATE (IO3) IN PPM	PPM	5 Maximum	<0.5000
INSOLUBLE MATTER	%	0.005 Maximum	0.0010
IDENTIFICATION	PASS/FAIL	Pass test	PASS
PHOSPHATE (PO4)	PPM	5 Maximum	4.000
CHLORIDE	%	0.001 Maximum	0.0010
CALCIUM IN %	%	0.005 Maximum	0.0008
ASSAY	%	99 Minimum	100.1000
APPEARANCE	REPORT	Colorless crystals	WHITE FINE CRYSTALS
SULFATE (SO4)	%	0.003 Maximum	0.0030
PH 5% SOLN @ 25DEG C		5.5 to 8.3	5.50
HEAVY METALS(AS Pb)	PPM	5 Maximum	1.70



CERTIFIED BY


 Lab Manager Fair Lawn


 Lab Manager BPF

Note: The date listed is valid for all package sizes of this lot of product, expressed as an extension of the catalog number listed above. If there are any questions with this certificate, please contact your account manager at 1-800-762-4242.

Certificate of Analysis

Nitrite Nitrogen Standard, 1000 ppm N (3285 ppm NO₂)
Lot Number: 2503729

Product Number: R5444900

Manufacture Date: MAR 11, 2015

Expiration Date: SEP 2015

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Nitrite	7758-09-0	ACS

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Assay (vs. Potassium Permanganate)	995-1005 ppm N	1002 ppm N	40

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
R5444900-120C	120 mL amber glass	6 months
R5444900-500C	500 mL amber glass	6 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)



Katie Schnur
Quality Control Manager

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

Certificate of Analysis

Nitrate Nitrogen Standard, 1000 ppm N (4427 ppm NO₃)
Lot Number: 2406477

Product Number: 5459

Manufacture Date: 6/3/2014

Expiration Date: NOV 2015

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Chloroform (Trichloromethane)	67-66-3	ACS
Potassium Nitrate	7757-79-1	High Purity
Water, Deionized	7732-18-5	ACS, ASTM D 1193 (Type I), EP, USP

Test	Specification	Result	NIST SRM#
Appearance, Clarity, Color, Odor	Clear, colorless, odorless	Passed Test	
Certified Concentration, Based on accurate volumetric preparation	1000 ± 5 ppm N	1000 ppm N	

Specification	Reference
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO ₃ -N)	ASTM (D 3867 A)
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO ₃ -N)	ASTM (D 3867 B)
Stock Nitrate Solution: 1 mL = 1.0 mg NO ₃ -N	EPA (353.2)
Stock Nitrate Solution: 1.0 mL = 1.00 mg NO ₃ -N	EPA (353.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5459-4	120 mL natural poly	18 months
5459-32	1 L natural poly	18 months
5459-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



LaNelle Ohlhausen
Quality Assurance

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To determine manufacture site using lot number, visit <http://www.riccachemical.com/Documents/lot.pdf>.

Certificate of Analysis

PRODUCT:	1000 mg/L Nitrite as N (NO ₂ -N)
CATALOG NUMBER:	053 -125 mL; 990 - 500 mL
LOT NUMBER:	030115
ISSUE DATE:	January 12, 2015
REVISION DATE:	Original
STARTING MATERIAL:	Sodium Nitrite (NaNO ₂)
CERTIFIED CONCENTRATION¹:	1000 mg/L
UNCERTAINTY²:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	1.0008 ± 0.0008 g/mL at 19.5°C and 768 mm Hg
TRACEABILITY³:	NA
NIST/SRM:	SRM not available
VERIFICATION METHOD:	Ion Chromatography
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.
2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation and internal analytical verification of the product by ERA, multiplied by a coverage factor which is equal to the student t factor at a 95% confidence interval at n-1 degrees of freedom. The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.
3. Traceability Recovery = ((% Recovery certified standard)/(% Recovery NIST SRM))*100.

The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs.

This standard **expires 1/2017**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Tom Widera





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Ph: 412-826-5230 | Fax: 724-473-0647 | www.labchem.com

CERTIFICATE OF ANALYSIS

Description: NITRATE (NITROGEN) STANDARD, 1000ppm (1mL = 1mg N)

Catalog Number: LC17900

Mfg Date: 06/17/2013

Lot Number: C163-25

Expiration Date: 06/17/2015

ANALYTICAL SECTION

Test	Specification	Test Result
Appearance	clear, colorless solution	Pass Test
Concentration ppm N	1000ppm +/- 10ppm	1007 ppm
Concentration mg N/mL	1.000 +/- 0.010 mg N/mL	1.007 mg/mL
Traceable to NIST	Potassium Nitrate	193

Submitted By: Greg Albright, Chemist Supervisor

An ISO9001:2008 certified company. Registration # 0306-01

06/18/2013 7:26:30 AM

Form #17.12 06/19/2012

Page 1 of 1

Certificate of Analysis

Phosphorus AA Standard, 1 mL = 1 mg P (1,000 ppm P)

NH₄H₂PO₄ in H₂O

Lot Number: 4405320

Product Number: AP1KW

Expiration Date: APR 2016

Manufacture Date: 5/8/2014

This is a single element solution that was prepared volumetrically to contain the certified value reported. The uncertainty associated with the certified value is the sum of the estimated errors due to the purity of the raw material, the volumetric preparation of the solution, and transpiration of the solution through the container wall.

The final solution concentration is confirmed by AA, ICP, or ICP-MS, and is traceable to NIST Standard Reference Material 3139.

This product number replaces 5857 as of 2007.

Contains:

Name	CAS#	Grade
Ammonium Dihydrogen Phosphate, NH ₄ H ₂ PO ₄	7722-76-1	High Purity
Water, Deionized, H ₂ O	7732-18-5	ACS, ASTM D 1193 (Type I)

Test Name	Assay Method	Specification	Result
Appearance	Clarity, Color, Odor	Clear, colorless, odorless	Passed Test
Certified Concentration	Based on accurate volumetric preparation	1000 ± 5 ppm P	1000 ppm P

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Shelf Life (unopened container):

Part Number	Shelf Life
AP1KW-100	24 months
AP1KW-500	24 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



LaNelle Ohlhausen
 Quality Assurance

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

To determine manufacture site using lot number, visit <http://www.riccachemical.com/Documents/lot.pdf>.

Certificate of Analysis

Sulfate Standard, 1000 ppm SO₄²⁻
Lot Number: 1410971

Product Number: 8112

Manufacture Date: 10/16/2014

Expiration Date: APR 2016

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Sodium Sulfate	7757-82-6	ACS
Water, Deionized	7732-18-5	ACS, ASTM D 1193 (Type D), EP, USP

Test	Specification	Result	NIST SRM#
Appearance, Clarity, Color, Odor	Clear, colorless, odorless	Passed Test	
Certified Concentration, Based on accurate volumetric preparation	1000 ± 5 ppm SO ₄ ²⁻	1000 ppm SO ₄ ²⁻	

Specification	Reference
Sulfate Solution Stock (1.00 mL = 1.00 mg SO ₄)	ASTM (D 5542)
Sulfate Stock Solution, 1 mL = 1 mg SO ₄	EPA (SW-846) (9036)
Sulfate Stock Solution (1.00 mL = 1.00 mg SO ₄ ²⁻)	EPA (SW-846) (9056)
Sulfate solution (1000 ppm)	TAPPI (T 699 om-87)
Sulfate Stock Solution, 1 mL = 1 mg SO ₄ ²⁻	EPA (375.2)
Sulfate Solution, Stock (1.00 mL = 1.00 mg SO ₄)	ASTM (D 5996)
Sulfate Stock Solution (1.00 mL = 1.00 mg SO ₄ ²⁻)	ASTM (D 4327)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
8112-4	120 mL natural poly	18 months
8112-32	1 L natural poly	18 months
8112-8	250 mL natural poly	18 months
8112-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



 Katie Schnur
 Quality Control Manager

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

Certificate of Analysis

Sulfate Standard, 1000 ppm SO₄²⁻
Lot Number: 1502814

Product Number: 8112

Manufacture Date: FEB 16, 2015

Expiration Date: JUL 2016

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Sulfate Anhydrous	7757-82-6	ACS

Test	Specification	Result
Appearance	Colorless liquid	Passed
Sulfate (SO ₄)	995-1005 ppm	1000 ppm

Specification	Reference
Sulfate Solution Stock (1.00 mL = 1.00 mg SO ₄)	ASTM (D 5542)
Sulfate Stock Solution, 1 mL = 1 mg SO ₄	EPA (SW-846) (9036)
Sulfate Stock Solution (1.00 mL = 1.00 mg SO ₄ ²⁻)	EPA (SW-846) (9056)
Sulfate solution (1000 ppm)	TAPPI (T 699 om-87)
Sulfate Stock Solution, 1 mL = 1 mg SO ₄	EPA (375.2)
Sulfate Solution, Stock (1.00 mL = 1.00 mg SO ₄)	ASTM (D 5996)
Sulfate Stock Solution (1.00 mL = 1.00 mg SO ₄ ²⁻)	ASTM (D 4327)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
8112-4	120 mL natural poly	18 months
8112-32	1 L natural poly	18 months
8112-8	250 mL natural poly	18 months
8112-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Katie Schnur
Quality Control Manager

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 08, 2014

11.2 Expiration Date

EXPIRES
01 SEP 2015

11.3 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Donna Senn

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Brian Alexander

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Paul R. Gaines



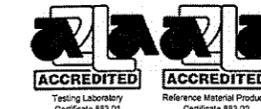
300 Technology Drive
Christiansburg, VA 24073 - USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 • 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105)).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
Catalog Number: STLDEN-STD-3B
Lot Number: H2-MEB541066
Matrix: 5% (v/v) HNO3
Value / Analyte(s):
10 000 µg/mL ea:
K,
4 000 µg/mL ea:
Mg,
1 000 µg/mL ea:
Ca, Na,
500 µg/mL ea:
Fe,
200 µg/mL ea:
Li, P,
100 µg/mL ea:
Ag, Al, B, Ba, Be, Cd,
Co, Cr3, Cu, Mn, Ni, Sr,
V, Zn

2830399
ID: Icp cal std 3_00009
Exp: 09/01/15 Prpd: SJS Opn: 08/18/14
ICP CAL STD 3B IV

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	100.0 ± 0.7 µg/mL	Barium, Ba	100.0 ± 0.6 µg/mL	Beryllium, Be	100.0 ± 0.7 µg/mL
Boron, B	100.0 ± 0.7 µg/mL	Cadmium, Cd	100.0 ± 0.6 µg/mL	Calcium, Ca	1,000 ± 4 µg/mL
Chromium+3, Cr3	100.0 ± 0.5 µg/mL	Cobalt, Co	100.0 ± 0.5 µg/mL	Copper, Cu	100.0 ± 0.7 µg/mL
Iron, Fe	500.0 ± 2.3 µg/mL	Lithium, Li	200.0 ± 1.3 µg/mL	Magnesium, Mg	4,000 ± 19 µg/mL
Manganese, Mn	100.0 ± 0.5 µg/mL	Nickel, Ni	100.0 ± 0.5 µg/mL	Phosphorus, P	200.0 ± 1.0 µg/mL
Potassium, K	10,000.0 ± 40.0 µg/mL	Silver, Ag	100.0 ± 0.6 µg/mL	Sodium, Na	1,000 ± 4 µg/mL
Strontium, Sr	100.0 ± 0.6 µg/mL	Vanadium, V	100.0 ± 0.5 µg/mL	Zinc, Zn	100.0 ± 0.6 µg/mL

Certified Density: 1.072 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
B	ICP Assay	3107	070514
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3113	000630 Co
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Li	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	Gravimetric		See Sec. 4.2
Na	ICP Assay	3152a	120715
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\sum x_i}{n}$ (\bar{x}) = mean
 x_i = individual results
 n = number of measurements

Uncertainty $(\pm) = 2 \left[\sum (s_i)^2 \right]^{1/2}$ 2 = the coverage factor.
 $\left[\sum (s_i)^2 \right]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Keep tightly sealed when not in use. Store and use at $20 \pm 4^\circ\text{C}$. Do not pipette from the container. Do not return removed aliquots to container.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Sample Name: std 3 @100 Acquired: 8/19/2014 4:28:00 Type: Unk
 Method: 6500_026(v14) Mode: CONC Corr. Factor: 1.000000
 User: Scottsa Custom ID1: Custom ID2: Custom ID3:
 Comment:

ICP Cal Std. 3
 00009

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .90075	1.1004	.00166	1.0353	1.0262	.92135	-.00020	9.5352	.98643
Stddev	.00043	.0007	.00197	.0028	.0061	.00517	.00140	.0496	.00011
%RSD	.04724	.05966	119.21	.27022	.59109	.56076	715.47	.51984	.01137

#1	.90105	1.1009	.00026	1.0373	1.0305	.92500	.00079	9.5703	.98651
#2	.90045	1.1000	.00305	1.0334	1.0219	.91769	-.00118	9.5002	.98635

Check ?	Chk Warn	Chk Pass							
High Limit	.10000								
Low Limit	-.01000								

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.96187	.95221	.89997	4.2115	W 103.73	2.0466	35.550	.98436	.00028
Stddev	.00121	.00080	.00051	.0037	.49	.0109	.060	.00075	.00002
%RSD	.12557	.08408	.05704	.08847	.46983	.53098	.16778	.07612	8.0644

#1	.96273	.95277	.89961	4.2141	104.07	2.0543	35.592	.98489	.00026
#2	.96102	.95164	.90034	4.2088	103.38	2.0390	35.507	.98383	.00029

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.798	.94925	1.9360	-.00200	-.00035	.00924	-.00263	.00233	.00076
Stddev	.281	.00131	.0011	.00008	.00490	.00153	.00351	.02300	.00163
%RSD	2.1958	.13804	.05781	4.1668	1385.4	16.611	133.65	987.36	215.19

#1	12.996	.95017	1.9352	-.00206	-.00382	.00815	-.00511	.01859	-.00040
#2	12.599	.94832	1.9368	-.00194	.00311	.01032	-.00014	-.01394	.00192

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.96076	.03632	.00120	W -.01132	-.00569	.85472	.98672	-.00116
Stddev	.00415	.00001	.00032	.00072	.00241	.00134	.00201	.00182
%RSD	.43156	.03657	26.317	6.3828	42.420	.15703	.20405	157.25

#1	.96369	.03633	.00098	-.01081	-.00740	.85567	.98530	.00013
#2	.95783	.03631	.00143	-.01183	-.00398	.85377	.98814	-.00245

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				5.0000				
Low Limit				-.01000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5003.9	71245.	5044.2
Stddev	6.3	215.	36.8
%RSD	.12501	.30143	.72902

#1	4999.5	71094.	5018.2
#2	5008.3	71397.	5070.2

Certificate of Analysis



2824137
ID: Icp ICVH_00163
Exp:08/07/15 Prod:3JS Opr:08/15/14
ICP ICVH HP

Product Description:

Name: ICVH
Part Number: SM-606-125
Lot Number: 1421732
Matrix: 5% HNO₃
Purity: 99.964% - 99.9995%

Certified Values:

Element	($\mu\text{g/mL}$)	SRM ID	SRM Lot#	Element	($\mu\text{g/mL}$)	SRM ID	SRM Lot#
Al	4000 \pm 20	3101a	060502	Th	300.0 \pm 1.8	3159	*
Fe	8000 \pm 40	3126a	*	U	500.0 \pm 2.5	3164	080521
Na	4000 \pm 20	3152a	120715				

The Certified values are based on gravimetric and volumetric preparation, and verified against SRM 3100 series developed by National Institute of Standards and Technology (NIST) via inductively coupled plasma optical emission spectrometry (ICP-OES) using an internal laboratory developed method. The uncertainty in the certified value is calculated for a 95% confidence interval and coverage factor k is about 2

* Refer to Traceability Information, Section d

Preparation Information:

The standard is generally prepared from single element standard solutions that are ISO Guide 34 certified reference materials. Highest purity source materials were purchased from qualified vendors per ISO 9001:2008 guidelines and assayed by ICP-OES for conformity prior to use. Sub-boiling distilled high-purity acid has been used to place the materials in solution and to stabilize the standard. The matrix is as noted above in 18 megaohm deionized water.

Traceability Information:

The traceability of this standard is maintained through an unbroken chain of comparisons to appropriate standards with suitable procedure and measurement uncertainties. The maintenance of the base and derived units of International System of Units (SI) with traceability of measurement results (contemporary metrology) to SI ensures their comparability over time as follows.

a. Standard Weight and Analytical Balance

The standard weights (NBS weights Inventory No 20231A) are calibrated every two years by South Carolina Metrology Laboratory that is a participant in "NIST Weights and Measures Measurement Assurance Program" with a certificate of measurement traceability to NIST primary standards.

The balances are calibrated yearly by the ISO 17025 accredited metrology service, and are verified weekly by an in-house method using standard weights.

b. Volumetric Device

The calibration of volumetric vessels is checked annually using the ASTM method E542

Lot No.: 1421732

Rev. No.: 3.2.0

Page 1 of 2

High-Purity Standards is certified to ISO 9001:2008 and accredited to ISO/IEC 17025:2005 and ISO Guide 34:2009.

c. **Thermometer**

The standard thermometers are calibrated every year by the ISO 17025 accredited metrology service. The thermometers used in-house are verified against the standard thermometers yearly.

d. **Calibration Standards**

The Calibration Standards are traceable to SRM 3100 Series Spectrometric Standard Solutions or second sources.

Packaging and Storage Conditions:

The standard is packaged in a pre-cleaned polyethylene bottle. To maintain the integrity of this product, the solution should be kept tightly capped and stored under normal laboratory conditions.

Refer to Material Safety Datasheet (MSDS) for hazardous information.

Expiration Information:

The expiry date is guaranteed to be valid for twelve months from the shipping date provided. For this reason, standards from the same lot may have different expiration dates.

Preparation Date: August 5, 2014
Shipped Date: August 7, 2014
Expiration Date: August 7, 2015
Certificate Issue Date: August 6, 2014

Quality Information:



**ISO/IEC 17025:2005 Accreditation
Certificate Number AT-1529**

A handwritten signature in black ink, appearing to read "Angel Sellers".

**Angel Sellers
Quality Manager**

NOTICE: HPS products are intended for laboratory use only. All products should be handled and used by trained professional personnel. The responsibility for the safe handling and use of these products rests solely with the buyer and/or user. The data and information as stated was furnished by the manufacturer of the product. The information provided in this certificate pertains only to the lot number specified. None of the information provided in this certificate may be used, reproduced or transmitted in any form or by any means without written approval from High Purity Standards.

Lot No.: **1421732**

Rev. No.: 3.2.0

Page 2 of 2

High-Purity Standards is certified to ISO 9001:2008 and accredited to ISO/IEC 17025:2005 and ISO Guide 34:2009.

Sample Name: icvh verf@10 Acquired: 8/16/2014 2:18:10 Type: Unk
 Method: 6500_026(v14) Mode: CONC Corr. Factor: 1.000000
 User: Scottsa Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01110	R 360.39 ✓	.00669	.00294	.00190	-.00084	F -.07611	F -.13870	W -.00546
Stddev	.00108	5.30	.00590	.00066	.00053	.00001	.00086	.00481	.00001
%RSD	9.7339	1.4707	88.173	22.610	27.902	1.1402	1.1301	3.4710	.12630

#1	.01034	356.64	.01086	.00341	.00153	-.00085	-.07550	-.13530	-.00545
#2	.01187	364.14	.00252	.00247	.00228	-.00083	-.07672	-.14211	-.00546

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Warn					
High Limit							100.00	2500.0	2.0000
Low Limit							-.02000	-.10000	-.00500

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00724	.00176	-.00365	W 710.33	-.08081	.00820	W -.19949	.01839	W -.01059
Stddev	.00025	.00039	.00029	10.87	.01394	.00043	.00465	.00004	.00054
%RSD	3.5124	21.945	7.9032	1.5307	17.252	5.2273	2.3300	.21972	5.0961

#1	.00706	.00149	-.00344	702.64	-.09067	.00790	-.19620	.01842	-.01021
#2	.00742	.00203	-.00385	718.02	-.07095	.00851	-.20277	.01836	-.01097

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn
High Limit				500.00			500.00		2.0000
Low Limit				40.000			-.10000		-.01000

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	395.28 ✓	-.00430	.01820	.00715	-.16147	.02187	F -.02877	-.00242	.00945
Stddev	5.92	.00047	.00115	.00031	.00948	.00191	.00248	.00813	.00058
%RSD	1.4972	11.001	6.3194	4.2816	5.8718	8.7130	8.6034	335.84	6.1443

#1	391.10	-.00464	.01901	.00694	-.15477	.02322	-.03052	-.00817	.00986
#2	399.47	-.00397	.01739	.00737	-.16818	.02052	-.02702	.00333	.00904

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit							50.000		
Low Limit							-.01000		

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00121	28.966 ✓	.14584	-.00637	W 48.713	.00689	.26636	.18395
Stddev	.00001	.082	.00018	.00091	.162	.00066	.05459	.01449
%RSD	.74950	.28230	.12307	14.230	.33257	9.5075	20.493	7.8789

#1	.00121	28.908	.14571	-.00573	48.598	.00643	.30496	.17371
#2	.00120	29.024	.14597	-.00701	48.828	.00736	.22777	.19420

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit					45.000			
Low Limit					-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4950.4	61386.	5431.9
Stddev	5.8	244.	36.6
%RSD	.11635	.39747	.67336

#1	4946.4	61213.	5406.0
#2	4954.5	61558.	5457.8

Certificate of Analysis

Product Description:

Name: Intrepid ICVL
Part Number: SM-606-062
Solution A
Lot Number: 1430702
Matrix: 5% HNO₃
Purity: 99.98% - 99.9999%



2984652
ID: Icp ICVL A_00008
Exp: 11/05/15 Pripd: SJS Opt: 11/11/14
ICP ICVL SOLUTION A H

Certified Values:

Element	(mg/L)	SRM ID	SRM Lot#	Element	(mg/L)	SRM ID	SRM Lot#
Al	25.00 ± 0.13	3101a	060502	Li	25.00 ± 0.15	3129a	100714
As	25.00 ± 0.25	3103a	100818	Mg	1000 ± 5	3131a	050302
Ba	25.00 ± 0.15	3104a	070222	Mn	25.00 ± 0.25	3132	050429
Be	25.00 ± 0.25	3105a	090514	Ni	25.00 ± 0.13	3136	120619
B	25.00 ± 0.13	3107	070514	K	2000 ± 10	*	
Cd	25.00 ± 0.13	3108	130116	Se	50.0 ± 0.5	3149	100901
Ca	200 ± 1	3109a	050825	Na	200 ± 1	3152a	120715
Cr	25.00 ± 0.13	3112a	030730	Sr	25.00 ± 0.13	3153a	990906
Co	25.00 ± 0.13	3113	000630	Tl	50.00 ± 0.25	3158	993012
Cu	25.00 ± 0.13	3114	121207	V	25.00 ± 0.15	3165	992706
Fe	25.00 ± 0.13	*		Zn	25.00 ± 0.13	3168a	120629
Pb	25.00 ± 0.15	3128	101026				

The Certified values are based on gravimetric and volumetric preparation, and verified against SRM 3100 series developed by National Institute of Standards and Technology (NIST) via inductively coupled plasma optical emission spectrometry (ICP-OES) using an internal laboratory developed method. The uncertainty in the certified value is calculated for a 95% confidence interval and coverage factor *k* is about 2

* Refer to Traceability Information, Section d

Preparation Information:

The standard is generally prepared from single element standard solutions that are ISO Guide 34 certified reference materials. Highest purity source materials were purchased from qualified vendors per ISO 9001:2008 guidelines and assayed by ICP-OES for conformity prior to use. Sub-boiling distilled high-purity acid has been used to place the materials in solution and to stabilize the standard. The matrix is as noted above in 18 megaohm deionized water.

Traceability Information:

The traceability of this standard is maintained through an unbroken chain of comparisons to appropriate standards with suitable procedure and measurement uncertainties. The maintenance of the base and derived

Lot No.: 1430702

Rev. No.: 3.2.0

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High-Purity Standards is certified to ISO 9001:2008 and accredited to ISO/IEC 17025:2005 and ISO Guide 34:2009.

units of International System of Units (SI) with traceability of measurement results (contemporary metrology) to SI ensures their comparability over time as follows.

a. Standard Weight and Analytical Balance

The standard weights (NBS weights Inventory No 20231A) are calibrated every two years by South Carolina Metrology Laboratory that is a participant in "NIST Weights and Measures Measurement Assurance Program" with a certificate of measurement traceability to NIST primary standards.

The balances are calibrated yearly by the ISO 17025 accredited metrology service, and are verified weekly by an in-house method using standard weights.

b. Volumetric Device

The calibration of volumetric vessels is checked annually using the ASTM method E542

c. Thermometer

The standard thermometers are calibrated every year by the ISO 17025 accredited metrology service. The thermometers used in-house are verified against the standard thermometers yearly.

d. Calibration Standards

The Calibration Standards are traceable to SRM 3100 Series Spectrometric Standard Solutions or second sources.

Packaging and Storage Conditions:

The standard is packaged in a pre-cleaned polyethylene bottle. To maintain the integrity of this product, the solution should be kept tightly capped and stored under normal laboratory conditions.

Refer to Material Safety Datasheet (MSDS) for hazardous information.

Expiration Information:

The expiry date is guaranteed to be valid for twelve months from the shipping date provided. For this reason, standards from the same lot may have different expiration dates.

Preparation Date: November 3, 2014

Shipped Date: November 5, 2014

Expiration Date: November 5, 2015

Certificate Issue Date: November 3, 2014

Quality Information:



**ISO/IEC 17025:2005 Accreditation
Certificate Number AT-1529**

A handwritten signature in cursive script that reads "Angel Sellers".

**Angel Sellers
Quality Manager**

NOTICE: HPS products are intended for laboratory use only. All products should be handled and used by trained professional personnel. The responsibility for the safe handling and use of these products rests solely with the buyer and/or user. The data and information as stated was furnished by the manufacturer of the product. The information provided in this certificate pertains only to the lot number specified. None of the information provided in this certificate may be used, reproduced or transmitted in any form or by any means without written approval from High Purity Standards.

Lot No.: **1430702**

Rev. No.: 3.2.0

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High-Purity Standards is certified to ISO 9001:2008 and accredited to ISO/IEC 17025:2005 and ISO Guide 34:2009.

Sample Name: 2984652icvl a @10 Acquired: 11/13/2014 18:45:51 Type: Unk
 Method: 6500_026(v6) Mode: CONC Corr. Factor: 1.000000
 User: Scottsa Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	228.061 {451}	317.933 {106}	228.802 {447}	228.616 {447}	205.552 {464}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-00046	2.5540	2.5940	2.6264	2.6162	2.6501	0.0045	20.920	W 2.6302	2.5574	2.5432
Stddev	.00116	.0039	.0048	.0102	.0055	.0038	.00184	.030	.0049	.0043	.0018
%RSD	250.97	.15439	.18607	.38756	.20920	.14364	410.50	.14195	.18750	.17011	.07142
#1	-.00128	2.5512	2.5906	2.6192	2.6124	2.6474	-.00085	20.899	2.6267	2.5543	2.5419
#2	.00036	2.5568	2.5974	2.6336	2.6201	2.6528	.00174	20.941	2.6337	2.5604	2.5445
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass				
High Limit									2.0000		
Low Limit									-.00500		
Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Line	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.5354	2.6511	W 212.20	2.6336	104.18	2.5930	-.00053	21.386	2.5164	-.00367	2.5903
Stddev	.0040	.0117	.34	.0094	.09	.0014	.00057	.685	.0024	.00262	.0028
%RSD	.15891	.43946	.15966	.35682	.08350	.05592	108.33	3.2012	.09651	71.476	.10971
#1	2.5326	2.6429	211.96	2.6270	104.24	2.5940	-.00012	20.902	2.5147	-.00553	2.5883
#2	2.5383	2.6593	212.44	2.6403	104.12	2.5920	-.00093	21.870	2.5182	-.00182	2.5923
Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			100.00								
Low Limit			-.50000								
Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924
Line	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.04680	-.00093	W 5.1580	.04774	.00036	2.6116	.09766	.00426	W 5.0722	-.00564	2.6531
Stddev	.00633	.00023	.0006	.01833	.00134	.0056	.00049	.00021	.0070	.04454	.0018
%RSD	13.522	25.177	.01238	38.397	373.75	.21558	.49780	4.8611	.13821	789.06	.06700
#1	-.04232	-.00077	5.1575	.06070	.00130	2.6076	.09731	.00411	5.0672	-.03714	2.6543
#2	-.05127	-.00110	5.1584	.03478	-.00059	2.6155	.09800	.00440	5.0771	.02585	2.6518
Check ?	None	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass
High Limit			5.0000						5.0000		
Low Limit			-.00500						-.01000		
Elem	Zn2062	Zr3391									
Line	206.200 {163}	339.198 {99}									
Units	ppm	ppm									
Avg	2.6108	-.00209									
Stddev	.0042	.00005									
%RSD	.15945	2.4553									
#1	2.6079	-.00212									
#2	2.6138	-.00205									
Check ?	Chk Pass	Chk Pass									
High Limit											
Low Limit											
Int. Std.	Y_2243	Y_3600	Y_3774								
Line	224.306 {450}	360.073 {94}	377.433 {89}								
Units	Cts/S	Cts/S	Cts/S								
Avg	3983.1	60832.	4448.0								
Stddev	10.5	102.	.1								
%RSD	.26264	.16819	.00331								
#1	3975.7	60904.	4447.9								
#2	3990.5	60760.	4448.1								

b. **Volumetric Device**

The calibration of volumetric vessels is checked annually using the ASTM method E542

c. **Thermometer**

The standard thermometers are calibrated every year by the ISO 17025 accredited metrology service. The thermometers used in-house are verified against the standard thermometers yearly.

d. **Calibration Standards**

The Calibration Standards are traceable to SRM 3100 Series Spectrometric Standard Solutions or second sources.

Packaging and Storage Conditions:

The standard is packaged in a pre-cleaned polyethylene bottle. To maintain the integrity of this product, the solution should be kept tightly capped and stored under normal laboratory conditions.

Refer to Material Safety Datasheet (MSDS) for hazardous information.

Expiration Information:

The expiry date is guaranteed to be valid for twelve months from the shipping date provided. For this reason, standards from the same lot may have different expiration dates.

Preparation Date: March 18, 2014

Shipped Date: March 20, 2014

Expiration Date: March 20, 2015

Certificate Issue Date: March 19, 2014

Quality Information:



ISO/IEC 17025:2005 Accreditation
Certificate Number AT-1529

A handwritten signature in cursive script that reads 'Angel Sellers'.

Angel Sellers
Quality Manager

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Lot No.: 1407732
Rev. No.: 3.2.0
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ISAB STD 1

ICP ISAB STD1



2579930
ID: ICP ISAB STD1_00006
Exp:09/20/15 Prpd:SJS Opr:04/18/14
ICAP ICSAB STD 1 SOL A

Certificate of Analysis

Product Description:

Name: ICS-AB STD#1
Part Number: SM-606-037
Solution A
Lot Number: 1407732
Matrix: 20% HCl
Purity: 99.97% - 99.9999%

Certified Values:

Element	(mg/L)	SRM ID	SRM Lot#	Element	(mg/L)	SRM ID	SRM Lot#
Sb	100.0 ± 0.6	3102a	061229	P	200.0 ± 1.2	3139a	060717
As	200 ± 2	3103a	100818	K	5000 ± 25	3141a	051220
B	200.0 ± 1.2	3107	070514	Se	500 ± 5	3149	100901
Li	100.0 ± 0.6	3129a	100714	Na	5000 ± 25	3152a	120715
Mo	100.0 ± 0.6	3134	891307	Sr	100.0 ± 0.5	3153a	990906

The Certified values are based on gravimetric and volumetric preparation, and verified against SRM 3100 series developed by National Institute of Standards and Technology (NIST) via inductively coupled plasma optical emission spectrometry (ICP-OES) using an internal laboratory developed method. The uncertainty in the certified value is calculated for a 95% confidence interval and coverage factor *k* is about 2

* Refer to Traceability Information, Section d

Preparation Information:

The standard is generally prepared from single element standard solutions that are ISO Guide 34 certified reference materials. Highest purity source materials were purchased from qualified vendors per ISO 9001:2008 guidelines and assayed by ICP-OES for conformity prior to use. Sub-boiling distilled high-purity acid has been used to place the materials in solution and to stabilize the standard. The matrix is as noted above in 18 megaohm deionized water.

Traceability Information:

The traceability of this standard is maintained through an unbroken chain of comparisons to appropriate standards with suitable procedure and measurement uncertainties. The maintenance of the base and derived units of International System of Units (SI) with traceability of measurement results (contemporary metrology) to SI ensures their comparability over time as follows.

a. Standard Weight and Analytical Balance

The standard weights (NBS weights Inventory No 20231A) are calibrated every two years by South Carolina Metrology Laboratory that is a participant in "NIST Weights and Measures Measurement Assurance Program" with a certificate of measurement traceability to NIST primary standards.

The balances are calibrated yearly by the ISO 17025 accredited metrology service, and are verified weekly by an in-house method using standard weights.

Lot No.: 1407732
Rev. No.: 3.2.0
Page 1 of 2

High-Purity Standards is certified to ISO 9001:2008 and accredited to ISO/IEC 17025:2005 and ISO Guide 34:2009.

Sample Name: isab 1@100 Acquired: 4/26/2014 5:43:46 Type: Unk
 Method: 6500_026(v80) Mode: CONC Corr. Factor: 1.000000
 User: Scottsa Custom ID1: Custom ID2: Custom ID3:
 Comment:

00004 4/18/14

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00046	-.01004	.00273	.01443	.00171	.00001	-.00393	-.00238	-.00018
Stddev	.00060	.00034	.00171	.00010	.00052	.00007	.00079	.01050	.00008
%RSD	130.25	3.3736	62.864	.72146	30.547	469.71	20.017	441.56	42.750
#1	.00004	-.00980	.00151	.01450	.00208	-.00003	-.00337	.00505	-.00023
#2	.00089	-.01028	.00394	.01435	.00134	.00006	-.00449	-.00980	-.00012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00023	.00020	-.00089	-.01613	.32360	.00061	.00847	.00005	-.00032
Stddev	.00033	.00042	.00008	.00286	.07919	.00326	.00134	.00002	.00031
%RSD	141.68	212.19	8.7043	17.749	24.472	534.35	15.847	40.184	98.071
#1	-.00000	-.00010	-.00084	-.01816	.37960	-.00170	.00942	.00003	-.00010
#2	.00047	.00049	-.00095	-.01411	.26761	.00292	.00752	.00006	-.00054
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52359	.00384	.02106	.00108	.12888	-.00043	.00008	-.00518	.00618
Stddev	.01207	.00063	.00128	.00021	.00436	.00114	.00041	.01599	.00064
%RSD	2.3051	16.504	6.0577	19.465	3.3866	266.41	530.28	308.76	10.328
#1	.53212	.00429	.02196	.00123	.13196	.00038	-.00021	-.01649	.00573
#2	.51505	.00340	.02016	.00094	.12579	-.00124	.00037	.00613	.00664
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00019	-.00107	-.00022	W 11.230	.02192	.00075	-.00038	-.00225
Stddev	.00021	.00031	.00067	.017	.00271	.00102	.00047	.00280
%RSD	108.33	28.675	300.63	.15470	12.375	136.28	123.53	124.45
#1	-.00004	-.00129	-.00070	11.218	.02384	.00003	-.00005	-.00027
#2	-.00034	-.00085	.00025	11.243	.02000	.00147	-.00071	-.00422
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				5.0000				
Low Limit				-.01000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4146.6	57639.	3109.6
Stddev	5.1	320.	11.1
%RSD	.12341	.55600	.35597
#1	4150.2	57866.	3101.8
#2	4143.0	57413.	3117.4

d. **Calibration Standards**

The Calibration Standards are traceable to SRM 3100 Series Spectrometric Standard Solutions or second sources.

Packaging and Storage Conditions:

The standard is packaged in a pre-cleaned polyethylene bottle. To maintain the integrity of this product, the solution should be kept tightly capped and stored under normal laboratory conditions.

Refer to Material Safety Datasheet (MSDS) for hazardous information.

Expiration Information:

The expiry date is guaranteed to be valid for twelve months from the shipping date provided. For this reason, standards from the same lot may have different expiration dates.

Preparation Date: March 18, 2014

Shipped Date: March 20, 2014

Expiration Date: March 20, 2015

Certificate Issue Date: March 19, 2014

Quality Information:



ISO/IEC 17025:2005 Accreditation
Certificate Number AT-1529

A handwritten signature in cursive script, appearing to read 'Angel Sellers'.

Angel Sellers
Quality Manager

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Lot No.: 1407733

Rev. No.: 3.2.0

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High-Purity Standards is certified to ISO 9001:2008 and accredited to ISO/IEC 17025:2005 and ISO Guide 34:2009.

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ICP ISAB ST2

06/09/2015

ICP ISAB STD2



P.O. Box 41727
Charleston, SC 29423
Phone (843) 767-7900
Fax (843) 767-7906

2579931
ID: ICP ISAB STD2_00006
Exp:09/20/15 Ppd: SJS Opr: 04/01/14
ICP ISAB STD 2 HP

Certificate of Analysis

Product Description:

Name: ICS-AB STD #2
Part Number: SM-606-038
Lot Number: 1407733
Matrix: 20% HCl
Purity: 99.98% - 99.9998%

Certified Values:

Element	(mg/L)	SRM ID	SRM Lot#	Element	(mg/L)	SRM ID	SRM Lot#
Sn	1000 ± 6	3161a	070330	Ti	100.0 ± 0.6	3162a	060808

The Certified values are based on gravimetric and volumetric preparation, and verified against SRM 3100 series developed by National Institute of Standards and Technology (NIST) via inductively coupled plasma optical emission spectrometry (ICP-OES) using an internal laboratory developed method. The uncertainty in the certified value is calculated for a 95% confidence interval and coverage factor *k* is about 2
* Refer to Traceability Information, Section d

Preparation Information:

The standard is generally prepared from single element standard solutions that are ISO Guide 34 certified reference materials. Highest purity source materials were purchased from qualified vendors per ISO 9001:2008 guidelines and assayed by ICP-OES for conformity prior to use. Sub-boiling distilled high-purity acid has been used to place the materials in solution and to stabilize the standard. The matrix is as noted above in 18 megaohm deionized water.

Traceability Information:

The traceability of this standard is maintained through an unbroken chain of comparisons to appropriate standards with suitable procedure and measurement uncertainties. The maintenance of the base and derived units of International System of Units (SI) with traceability of measurement results (contemporary metrology) to SI ensures their comparability over time as follows.

- a. **Standard Weight and Analytical Balance**
The standard weights (NBS weights Inventory No 20231A) are calibrated every two years by South Carolina Metrology Laboratory that is a participant in "NIST Weights and Measures Measurement Assurance Program" with a certificate of measurement traceability to NIST primary standards. The balances are calibrated yearly by the ISO 17025 accredited metrology service, and are verified weekly by an in-house method using standard weights.
- b. **Volumetric Device**
The calibration of volumetric vessels is checked annually using the ASTM method E542
- c. **Thermometer**
The standard thermometers are calibrated every year by the ISO 17025 accredited metrology service. The thermometers used in-house are verified against the standard thermometers yearly.

Lot No.: 1407733
Rev. No.: 3.2.0
Page 1 of 2

High-Purity Standards is certified to ISO 9001:2008 and accredited to ISO/IEC 17025:2005 and ISO Guide 34:2009.

Sample Name: isab 2@100 Acquired: 4/26/2014 5:46:12 Type: Unk
 Method: 6500_026(v80) Mode: CONC Corr. Factor: 1.000000
 User: Scottsa Custom ID1: Custom ID2: Custom ID3:
 Comment:

-00004 4/11/14

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00060	-.00990	.00206	.01166	.00193	-.00010	.00082	-.00514	-.00027
Stddev	.00000	.00023	.00251	.00077	.00003	.00007	.00191	.00322	.00008
%RSD	.32553	2.3235	121.37	6.6138	1.8013	78.194	233.01	62.705	29.572
#1	.00060	-.01006	.00029	.01112	.00190	-.00004	-.00053	-.00286	-.00022
#2	.00060	-.00973	.00384	.01221	.00195	-.00015	.00217	-.00742	-.00033
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00041	.00043	-.00141	-.00951	.37325	-.00176	.01766	.00072	-.00048
Stddev	.00028	.00020	.00007	.00180	.01431	.00036	.02676	.00134	.00024
%RSD	67.958	46.817	4.9765	18.924	3.8339	20.266	151.56	185.09	50.510
#1	.00061	.00029	-.00136	-.01078	.38337	-.00201	.03658	.00167	-.00031
#2	.00021	.00057	-.00146	-.00824	.36313	-.00151	-.00127	-.00022	-.00066
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.38242	.00086	.01147	.00225	.11581	-.00002	.00140	W -.17038	W 10.580
Stddev	.02927	.00046	.00559	.00032	.00434	.00108	.00719	.02474	.029
%RSD	7.6528	53.675	48.703	14.329	3.7457	5792.9	513.10	14.518	.27392
#1	.36173	.00118	.01542	.00202	.11274	.00074	-.00368	-.15289	10.559
#2	.40312	.00053	.00752	.00248	.11887	-.00078	.00648	-.18787	10.600
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Warn	Chk Warn
High Limit								50.000	10.000
Low Limit								-.10000	-.05000

Elem	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00004	-.00173	.94646	.00195	.02630	.00045	.00014	-.00171
Stddev	.00010	.00072	.00120	.00040	.02741	.00070	.00126	.00327
%RSD	217.05	41.595	.12684	20.346	104.19	156.00	931.72	191.30
#1	-.00002	-.00122	.94561	.00167	.00692	.00095	.00103	.00060
#2	.00011	-.00224	.94731	.00223	.04568	-.00005	-.00076	-.00403
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	4083.5	56575.	3039.5
Stddev	22.7	98.	1.8
%RSD	.55474	.17367	.05997
#1	4099.6	56644.	3038.2
#2	4067.5	56505.	3040.8

Sample Name: 3015802LLCCV-1 Acquired: 12/3/2014 12:51:54 Type: Unk

Method: 6500_026 Mode: CONC Corr. Factor: 1.000000

User: L. Diaz Custom ID1: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280 ✓	Al3092 ✓	As1890 ✓	B_2089	Ba4554 ✓	Be3130 ✓	Bi2230 ✓	Ca3179 ✓	Cd2288 ✓
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1.0113	10.136	1.6495	.02362	1.0744	.10175	W 10.908	20.397	.53116
Stddev	.0097	.011	.0022	.00025	.0006	.00004	.007	.032	.00116
%RSD	.95697	.10815	.13575	1.0460	.05727	.03580	.06608	.15789	.21796
#1	1.0181	10.129	1.6510	.02379	1.0739	.10172	10.903	20.420	.53034
#2	1.0044	10.144	1.6479	.02344	1.0748	.10177	10.914	20.374	.53198
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass
High Limit	.10000						3.0000		
Low Limit	-.01000						-.01000		

Elem	Co2286 ✓	Cr2055 ✓	Cu3247 ✓	Fe2599 ✓	K_7664 ✓	Li6707 ✓	Mg2790 ✓	Mn2576 ✓	Mo2020
Line	228.616 {447}	205.552 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0346	1.0460	1.5581	9.6578	W 329.44	1.1027	20.223	1.0134	-.00126
Stddev	.0011	.0025	.0053	.0101	.61	.0013	.005	.0010	.00013
%RSD	.10460	.23809	.34201	.10468	.18657	.11733	.02371	.09591	10.270
#1	1.0338	1.0442	1.5619	9.6649	329.88	1.1037	20.219	1.0127	-.00117
#2	1.0354	1.0478	1.5544	9.6506	329.01	1.1018	20.226	1.0141	-.00135
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-.50000				

Elem	Na8183 ✓	Ni2316 ✓	P_1782	Pb2203 ✓	S_1820	Sb2068	Se1960 ✓	Si2881	Sn1899
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	189.989 {477}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	115.03	4.0783	-.00540	.93896	.15112	-.00824	1.6559	.00849	.00787
Stddev	.72	.0042	.00066	.00391	.00610	.00208	.0057	.00218	.00062
%RSD	.62737	.10344	12.141	.41649	4.0365	25.220	.34713	25.721	7.8174
#1	114.52	4.0754	-.00494	.94173	.15544	-.00677	1.6600	.01004	.00743
#2	115.54	4.0813	-.00587	.93620	.14681	-.00971	1.6519	.00695	.00830
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Sr4077 ✓	Th2837 ✓	Ti3349	Tl1908 ✓	U_3701 ✓	V_2924 ✓	Zn2062 ✓	Zr3391
Line	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0580	1.5732	-.00715	1.5107	6.5253	1.0422	2.0700	.03655
Stddev	.0006	.0014	.00010	.0049	.0227	.0019	.0074	.00198
%RSD	.05448	.09032	1.4025	.32597	.34827	.18286	.35719	5.4268
#1	1.0584	1.5722	-.00722	1.5072	6.5092	1.0409	2.0648	.03515
#2	1.0576	1.5742	-.00708	1.5142	6.5414	1.0436	2.0753	.03795
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3890.7	76156.	5820.2
Stddev	4.3	322.	14.8
%RSD	.11072	.42297	.25393
#1	3893.7	76384.	5809.8
#2	3887.6	75929.	5830.7

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105)).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: ICP-LLCCV-1
 Lot Number: H2-MEB534141
 Matrix: 5% (v/v) HNO₃
 Value / Analyte(s): 300 µg/mL ea:
 K,
 100 µg/mL ea:
 Na,
 20 µg/mL ea:
 Ca, Mg,
 10 µg/mL ea:
 Al, Bi, Fe,
 6 µg/mL ea:
 U,
 4 µg/mL ea:
 Ni,
 2 µg/mL ea:
 Zn,
 1.5 µg/mL ea:
 As, Cu, Se,
 Th, Tl,
 1 µg/mL ea:
 Ag, Ba, Co,
 Cr₃, Li, Mn,
 Sr, V,
 0.9 µg/mL ea:
 Pb,
 0.5 µg/mL ea:
 Cd,
 0.1 µg/mL ea:
 Be

3015802
 ID: ICP LLCCV-1_00025
 Exp:12/01/15 Prep:SLJ Opn:12/01/14
 ICP LLCCV STD 1 IV

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum	10.00 ± 0.05 µg/mL	Arsenic	1.505 ± 0.009 µg/mL
Barium	0.998 ± 0.005 µg/mL	Beryllium	0.0998 ± 0.0006 µg/mL
Bismuth	9.97 ± 0.05 µg/mL	Cadmium	0.5014 ± 0.0023 µg/mL
Calcium	20.07 ± 0.09 µg/mL	Chromium+3	1.000 ± 0.005 µg/mL
Cobalt	0.998 ± 0.005 µg/mL	Copper	1.500 ± 0.007 µg/mL
Iron	10.00 ± 0.05 µg/mL	Lead	0.900 ± 0.005 µg/mL
Lithium	1.000 ± 0.007 µg/mL	Magnesium	20.08 ± 0.10 µg/mL
Manganese	0.998 ± 0.004 µg/mL	Nickel	3.990 ± 0.020 µg/mL
Potassium	300.2 ± 1.4 µg/mL	Selenium	1.503 ± 0.007 µg/mL
Silver	1.000 ± 0.004 µg/mL	Sodium	100.0 ± 1.0 µg/mL
Strontium	0.996 ± 0.004 µg/mL	Thallium	1.500 ± 0.007 µg/mL
Thorium	1.501 ± 0.008 µg/mL	Uranium	6.006 ± 0.029 µg/mL
Vanadium	1.001 ± 0.006 µg/mL	Zinc	2.001 ± 0.010 µg/mL

Certified Density: 1.022 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999a	999a
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
As	Calculated		See Sec. 4.2
As	ICP Assay	3103a	010713
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	892707
Bi	Calculated		See Sec. 4.2
Bi	ICP Assay	3106	991212
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3181	000630
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Li	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	000505
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	Gravimetric		See Sec. 4.2
Na	ICP Assay	3152a	010728
Ni	ICP Assay	3136	000612
Ni	EDTA	928	928
Pb	ICP Assay	3128	030721
Pb	EDTA	928	928
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	992106
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Th	ICP Assay	3159	992912
Th	EDTA	928	928
Tl	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	993012
U	Calculated		See Sec. 4.2
U	ICP Assay	3164	891509
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	080123
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Certified Value $(\bar{x}) = \frac{\sum x_i}{n}$ $(\bar{x}) = \text{mean}$
 $x_i = \text{individual results}$
 $n = \text{number of measurements}$

Uncertainty $(\pm) = 2 [\sum (s_i)^2]^{1/2}$ $2 = \text{the coverage factor.}$
 $[\sum (s_i)^2]^{1/2} = \text{The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.}$

Certified Abundance:

IV's Certified Abundance	
Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.29 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

- N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Keep tightly sealed when not in use. Store and use at 20 ± 4°C. Do not pipette from the container. Do not return removed aliquots to container.

- **Low Silver Note:** This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

- **Uranium Note:** If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 12, 2014

11.2 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.3. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

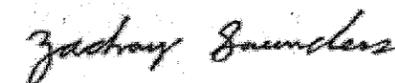
11.3 Expiration Date

EXPIRES
01 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Zach Saunders
Product Documentation Technician



Certificate Approved By:

Brian Alexander
PhD., Technical Process Director



Certifying Officer:

Paul Gaines
PhD., Senior Technical Director



Sample Name: 3053246@100 Acquired: 12/31/2014 18:36:42 Type: Unk
 Method: 6500_026(v8) Mode: CONC Corr. Factor: 1.000000
 User: Scottsa Custom ID1: 100X Custom ID2: Custom ID3:
 Comment: STDDEN-PDS-1

STDDEN-PDS-1
 ICP-00070

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Line	328.068 (103)	167.079 (502)	189.042 (478)	208.959 (461)	455.403 (74)	313.042 (108)	223.061 (451)	317.933 (106)	228.802 (447)	228.616 (447)	205.552 (464)	324.754 (104)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05125	1.0190	.20476	-.00158	.10832	.04997	.00343	19.986	.05074	.05092	.05055	.05243
Stddev	.00004	.0010	.00126	.00068	.00025	.00010	.00172	.034	.00035	.00039	.00032	.00030
%RSD	.08754	.09930	.61668	43.126	.22838	.20630	50.064	.17043	.68885	.76021	.62438	.57798

#1	.05128	1.0183	.20565	-.00206	.10849	.04989	.00222	19.962	.05099	.05119	.05033	.05265
#2	.05121	1.0198	.20386	-.00110	.10814	.05004	.00464	20.011	.05050	.05065	.05078	.05222

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Line	259.940 (130)	766.490 (44)	670.784 (50)	279.079 (121)2	257.610 (131)	202.030 (467)	818.326 (41)	231.604 (446)	178.284 (489)	220.353 (453)	182.034 (485)	206.833 (463)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0164	21.166	.10830	19.451	.05047	-.00034	23.057	.05049	2.0426	.10147	.05437	.00126
Stddev	.0063	.001	.00196	.023	.00005	.00042	.247	.00080	.0111	.00045	.00349	.00130
%RSD	.61748	.00489	1.8095	.11710	.10428	122.87	1.0726	1.5928	.54352	.44781	6.4183	102.81

#1	1.0119	21.167	.10692	19.467	.05044	-.00005	22.882	.05106	2.0504	.10179	.05684	.00218
#2	1.0208	21.165	.10969	19.435	.05051	-.00064	23.232	.04992	2.0347	.10115	.05190	.00034

Check ?	Chk Pass	None	Chk Pass									
High Limit												
Low Limit												

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	196.090 (472)	288.158 (117)	189.989 (477)	407.771 (83)	283.730 (119)	334.904 (101)	190.856 (477)	370.152 (91)	292.402 (115)	206.200 (163)	339.198 (99)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.20445	.03085	-.00071	.05365	.20045	-.00076	.20689	.51764	.04984	.19627	.00456
Stddev	.00488	.03424	.00014	.00013	.00172	.00047	.00119	.04321	.00010	.00026	.00021
%RSD	2.3856	110.96	19.638	.23896	.85914	62.279	.57379	8.3484	.19602	.13003	4.5491

#1	.20100	.00665	-.00061	.05374	.20167	-.00109	.20605	.54819	.04977	.19609	.00471
#2	.20790	.05506	-.00081	.05356	.19924	-.00042	.20773	.48708	.04991	.19645	.00441

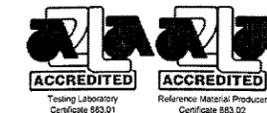
Check ?	Chk Pass										
High Limit											
Low Limit											

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 (450)	360.073 (94)	377.433 (89)
Units	Cts/S	Cts/S	Cts/S
Avg	3870.4	68357.	4147.2
Stddev	23.3	122.	3.5
%RSD	.60190	.17846	.08375

#1	3886.9	68271.	4144.7
#2	3854.0	68443.	4149.6

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105)).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: STLDEN-PDS-1
 Lot Number: H2-MEB546062
 Matrix: 3% (v/v) HNO3
 Value / Analyte(s):

2 000 µg/mL ea:	Ca,	K,	Mg,
	Na,		
200 µg/mL ea:			
	P,		
100 µg/mL ea:	Al,	Fe,	
50 µg/mL ea:	U,		
20 µg/mL ea:	As,	Se,	Th,
	Tl,	Zn,	
10 µg/mL ea:	Ba,	Li,	Pb,
5 µg/mL ea:	Ag,	Be,	Cd,
	Co,	Cr3,	Cu,
	Mn,	Ni,	Sr,
	V		

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum	100.0 ± 0.5 µg/mL	Arsenic	20.00 ± 0.13 µg/mL
Barium	10.00 ± 0.06 µg/mL	Beryllium	5.000 ± 0.028 µg/mL
Cadmium	5.001 ± 0.032 µg/mL	Calcium	2 000 ± 9 µg/mL
Chromium+3	5.000 ± 0.028 µg/mL	Cobalt	5.001 ± 0.032 µg/mL
Copper	5.001 ± 0.032 µg/mL	Iron	100.0 ± 0.5 µg/mL
Lead	10.00 ± 0.05 µg/mL	Lithium	10.00 ± 0.05 µg/mL
Magnesium	2 000 ± 9 µg/mL	Manganese	5.001 ± 0.028 µg/mL
Nickel	5.001 ± 0.028 µg/mL	Phosphorus	200.0 ± 1.0 µg/mL
Potassium	2 000 ± 9 µg/mL	Selenium	20.00 ± 0.11 µg/mL
Silver	5.001 ± 0.036 µg/mL	Sodium	2 000 ± 9 µg/mL
Strontium	4.999 ± 0.032 µg/mL	Thallium	20.00 ± 0.13 µg/mL
Thorium	20.00 ± 0.11 µg/mL	Uranium	50.00 ± 0.36 µg/mL
Vanadium	4.999 ± 0.032 µg/mL	Zinc	20.00 ± 0.11 µg/mL

Certified Density: 1.041 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
Al	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	060502
As	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3113	00630
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Li	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	Gravimetric		See Sec. 4.2
Na	ICP Assay	3152a	120715
Ni	ICP Assay	3136	000612
Ni	EDTA	928	928
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Th	ICP Assay	3159	992912
Th	EDTA	928	928
Tl	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	993012
U	Calculated		See Sec. 4.2
U	ICP Assay	3164	080521
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Certified Value $(\bar{x}) = \frac{\sum x_i}{n}$ (\bar{x}) = mean
 x_i = individual results
 n = number of measurements
 Uncertainty $(\pm) = 2 [\sum (s_i)^2]^{1/2}$ 2 = the coverage factor.
 $[\sum (s_i)^2]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

Certified Abundance:

IV's Certified Abundance	
Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.21 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

- N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Keep tightly sealed when not in use. Store and use at 20 ± 4°C. Do not pipette from the container. Do not return removed aliquots to container.

- **Low Silver Note:** This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

- **Uranium Note:** If uranium is present in this standard, it is natural abundance unless specified in Section 3.0.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 22, 2014

11.2 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.3. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

11.3 Expiration Date

EXPIRES
01/2016

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Zach Saunders
Product Documentation Technician

Zachary Saunders

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Brian Alexander

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Paul R. Gaines

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number 010105).



2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution			
Catalog Number:	STLDEN-PDS-1			
Lot Number:	H2-MEB546062			
Matrix:	3% (v/v) HNO ₃			
Value / Analyte(s):	2 000 µg/mL ea:			
	Ca,	K,	Mg,	Na,
	200 µg/mL ea:			
	P,			
	100 µg/mL ea:			
	Al,	Fe,		
	50 µg/mL ea:			
	U,			
	20 µg/mL ea:			
	As,	Se,	Th,	Tl,
	Zn,			
	10 µg/mL ea:			
	Ba,	Li,	Pb,	
	5 µg/mL ea:			
	Ag,	Be,	Cd,	Co,
	Cr ₃ ,	Cu,	Mn,	Ni,
	Sr,	V		



3167000
 ID: ICP PDS 1_00011
 Exp:04/01/16 Prp:JSJS Opn:03/24/15
 ICP PDS 1 IV

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	100.0 ± 0.5 µg/mL	Arsenic, As	20.00 ± 0.13 µg/mL
Barium, Ba	10.00 ± 0.06 µg/mL	Beryllium, Be	5.000 ± 0.028 µg/mL
Cadmium, Cd	5.001 ± 0.032 µg/mL	Calcium, Ca	2 000 ± 9 µg/mL
Chromium+3, Cr3	5.000 ± 0.028 µg/mL	Cobalt, Co	5.001 ± 0.032 µg/mL
Copper, Cu	5.001 ± 0.032 µg/mL	Iron, Fe	100.0 ± 0.5 µg/mL
Lead, Pb	10.00 ± 0.05 µg/mL	Lithium, Li	10.00 ± 0.05 µg/mL
Magnesium, Mg	2 000 ± 9 µg/mL	Manganese, Mn	5.001 ± 0.028 µg/mL
Nickel, Ni	5.001 ± 0.028 µg/mL	Phosphorus, P	200.0 ± 1.0 µg/mL
Potassium, K	2 000 ± 9 µg/mL	Selenium, Se	20.00 ± 0.11 µg/mL
Silver, Ag	5.001 ± 0.036 µg/mL	Sodium, Na	2 000 ± 9 µg/mL
Strontium, Sr	4.999 ± 0.032 µg/mL	Thallium, Tl	20.00 ± 0.13 µg/mL
Thorium, Th	20.00 ± 0.11 µg/mL	Uranium, U	50.00 ± 0.36 µg/mL
Vanadium, V	4.999 ± 0.032 µg/mL	Zinc, Zn	20.00 ± 0.11 µg/mL

Certified Density: 1.041 g/mL (measured at 20 ± 1 °C)

Assay Information:

Certified Value $(\bar{x}) = \frac{\sum x_i}{n}$

(\bar{x}) = mean

x_i = individual results

n = number of measurements

Uncertainty $(\pm) = 2 [\sum (s_i)^2]^{1/2}$

2 = the coverage factor.

$[\sum (s_i)^2]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

Certified Abundance:

IV's Certified Abundance	
Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.21 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Keep cap tightly sealed when not in use. Store and use at 20 ± 4° C. Do not pipette from the container. Do not return removed aliquots to container.

Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

Uranium Note: If uranium is present in this standard, it is natural abundance unless specified in Section 3.0

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 22, 2014

11.2 Expiration Date

EXPIRES
1 #2016

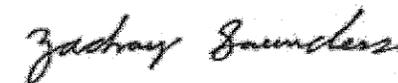
11.3 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Zach Saunders
Product Documentation Technician



Certificate Approved By:

Brian Alexander
PhD., Technical Process Director



Certifying Officer:

Paul Gaines
PhD., Senior Technical Director



ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
Al	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	060502
As	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3113	00630
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Li	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	Gravimetric		See Sec. 4.2
Na	ICP Assay	3152a	120715
Ni	ICP Assay	3136	000612
Ni	EDTA	928	928
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Th	ICP Assay	3159	992912
Th	EDTA	928	928
Tl	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	993012
U	Calculated		See Sec. 4.2
U	ICP Assay	3164	080521
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105)).


2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: STLDEN-RL-2A
 Lot Number: F2-MEB425129
 Matrix: tr. HF
 1.4% (v/v) HNO₃
 Value / Analyte(s): 500 µg/mL ea:
 Si,
 20 µg/mL ea:
 Sn,
 10 µg/mL ea:
 Mo, Ti, Zr

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Molybdenum, Mo	10.00 ± 0.06 µg/mL	Silicon, Si	500.3 ± 2.4 µg/mL	Tin, Sn	20.01 ± 0.13 µg/mL
Titanium, Ti	10.00 ± 0.07 µg/mL	Zirconium, Zr	10.00 ± 0.06 µg/mL		

Certified Density: 1.006 g/mL (measured at 20 ± 1 °C)

Assay Information:

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Mo	Calculated		See Sec. 4.2
Mo	ICP Assay	3134	891307
Si	Calculated		See Sec. 4.2
Si	ICP Assay	3150	071204
Sn	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	070330
Ti	Calculated		See Sec. 4.2
Ti	ICP Assay	3162a	060808
Zr	Calculated		See Sec. 4.2
Zr	ICP Assay	3169	071226

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

(\bar{x}) = mean
 x_i = individual results
 n = number of measurements

$$\text{Uncertainty } (\pm) = 2 \left[\sum (s_i)^2 \right]^{1/2}$$

2 = the coverage factor.
 $\left[\sum (s_i)^2 \right]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Keep tightly sealed when not in use. Store and use at $20 \pm 4^\circ\text{C}$. Do not pipette from the container. Do not return removed aliquots to container.

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 13, 2012

11.2 Expiration Date

EXPIRES

01st 2015

11.3 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

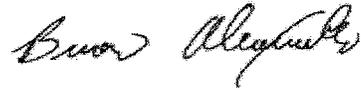
Certificate Prepared By:

Donna Senn
Product Documentation Technician



Certificate Approved By:

Brian Alexander
PhD., Technical Process Director



Certifying Officer:

Paul Gaines
PhD., Senior Technical Director



Sample Name: 2812789 Acquired: 12/20/2014 11:46:15 Type: Unk
 Method: 6500_026(v4) Mode: CONC Corr. Factor: 1.000000
 User: L. Trudell Custom ID1: Custom ID2: Custom ID3:
 Comment: rl3a

57

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}
Units	ppm	ppm	ppm	ppm	ppm
Avg	W 1.8890 <i>aq</i>	20.490 <i>102</i>	-0.00523	19.643 <i>98</i>	1.0389 <i>104</i>
Stddev	.0075	.153	.00033	.099	.0038
%RSD	.39869	.74612	6.3653	.50357	.37001
#1	1.8943	20.382	-0.00499	19.713	1.0362
#2	1.8836	20.598	-0.00546	19.573	1.0416
Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.10000				
Low Limit	-.01000				

Elem	Be3130	Bi2230	Ca3179	Cd2288	Co2286
Line	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19820 <i>aq</i>	-0.00129	40.362 <i>101</i>	1.0486 <i>105</i>	.99051 <i>99</i>
Stddev	.00098	.00044	.163	.0063	.00584
%RSD	.49453	33.643	.40318	.60135	.58939
#1	.19751	-0.00099	40.247	1.0530	.99464
#2	.19890	-0.00160	40.477	1.0441	.98639
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2055	Cu3247	Fe2599	K_7664	Li6707
Line	205.552 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.9674 <i>aq</i>	2.0258 <i>101</i>	6.0711 <i>101</i>	W 203.03 <i>102</i>	2.1009 <i>105</i>
Stddev	.0121	.0049	.0327	.81	.0080
%RSD	.61300	.24030	.53893	.40138	.38182
#1	1.9759	2.0292	6.0480	202.45	2.0952
#2	1.9588	2.0223	6.0943	203.61	2.1066
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit				100.00	
Low Limit				-.50000	

verified

Sample Name: 2812789 Acquired: 12/20/2014 11:46:15 Type: Unk

Method: 6500_026(v4) Mode: CONC Corr. Factor: 1.000000

User: L. Trudell Custom ID1: Custom ID2: Custom ID3:

Comment: r13a

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 { 41}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	38.355 <i>90</i>	.59806 <i>100</i>	.00010	210.62 <i>105</i>	1.9892 <i>99</i>
Stddev	.114	.00132	.00002	.74	.0109
%RSD	.29692	.22113	20.482	.35340	.54906
#1	38.435	.59900	.00009	210.09	1.9969
#2	38.274	.59713	.00012	211.14	1.9814
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	P_1782	Pb2203	S_1820	Sb2068	Se1960
Line	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}
Units	ppm	ppm	ppm	ppm	ppm
Avg	F 183.34 <i>92</i>	.00359	-.05650	W -.01075	-.00447
Stddev	.97	.00165	.00199	.00116	.00543
%RSD	.52996	46.064	3.5152	10.811	121.34
#1	184.03	.00242	-.05510	-.00993	-.00831
#2	182.66	.00476	-.05791	-.01157	-.00064
Check ?	Chk Fail	Chk Pass	None	Chk Warn	Chk Pass
High Limit	50.000			2.0000	
Low Limit	-2.0000			-.01000	

Elem	Si2881	Sn1899	Sr4077	Th2837	Ti3349
Line	288.158 {117}	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21567	.00164	1.0231 <i>102</i>	1.8709 <i>94</i>	-.00480
Stddev	.03681	.00072	.0045	.0108	.00099
%RSD	17.070	44.130	.44303	.57915	20.578
#1	.24170	.00215	1.0199	1.8785	-.00550
#2	.18964	.00113	1.0263	1.8632	-.00410
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 2812789 Acquired: 12/20/2014 11:46:15 Type: Unk
 Method: 6500_026(v4) Mode: CONC Corr. Factor: 1.000000
 User: L. Trudell Custom ID1: Custom ID2: Custom ID3:
 Comment: r13a

Elem	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00724	12.132	1.9825	2.0200	.02419
Stddev	.00048	.008	.0052	.0071	.00095
%RSD	6.6550	.06276	.26068	.35219	3.9391
#1	-.00690	12.126	1.9861	2.0250	.02352
#2	-.00758	12.137	1.9788	2.0150	.02487
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	5589.2	95190.	8299.9
Stddev	11.9	325.	25.8
%RSD	.21262	.34184	.31033
#1	5580.8	94960.	8318.2
#2	5597.6	95420.	8281.7

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105)).


2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution

Catalog Number: TA-ICP-SPK-2B

Lot Number: H2-MEB546154

Matrix: 5% (v/v) HNO₃
0.5% (v/v) HF

Value / Analyte(s): 1 000 µg/mL ea:
Si,
200 µg/mL ea:
S, Sn,
100 µg/mL ea:
B, Mo, Ti,
50 µg/mL ea:
Sb, Zr



3253592

ID: ICP SPK 2B_00025

 Exp:06/01/16 Prpd:CGG Opn:05/05/15
 ICP PREP SPIKE 2B

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	50.00 ± 0.38 µg/mL	Boron, B	100.0 ± 0.7 µg/mL	Molybdenum, Mo	100.0 ± 0.6 µg/mL
Silicon, Si	1 000 ± 8 µg/mL	Sulfur, S	200.0 ± 1.1 µg/mL	Tin, Sn	200.0 ± 0.9 µg/mL
Titanium, Ti	100.0 ± 0.7 µg/mL	Zirconium, Zr	50.00 ± 0.28 µg/mL		

Certified Density: 1.029 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	070514
Mo	ICP Assay	3134	891307
S	ICP Assay	3154	892205
S	Acidimetric	84L	84L
Sb	Calculated		See Sec. 4.2
Sb	ICP Assay	3102A	061229
Si	Calculated		See Sec. 4.2
Si	ICP Assay	3150	071204
Sn	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	070330
Ti	Calculated		See Sec. 4.2
Ti	ICP Assay	3162a	060808
Zr	Calculated		See Sec. 4.2
Zr	ICP Assay	3169	071226

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

(\bar{x}) = mean
 x_i = individual results
 n = number of measurements

$$\text{Uncertainty } (\pm) = 2 \left[\sum (s_i)^2 \right]^{1/2}$$

2 = the coverage factor.
 $\left[\sum (s_i)^2 \right]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Keep cap tightly sealed when not in use. Store and use at $20 \pm 4^\circ \text{C}$. Do not pipette from the container. Do not return removed aliquots to container.

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.1 Certification Issue Date

October 10, 2014

11.2 Expiration Date

EXPIRES

1 2016

11.3 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

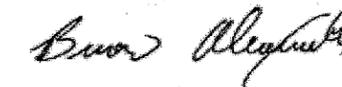
Certificate Prepared By:

Zach Saunders
Product Documentation Technician



Certificate Approved By:

Brian Alexander
PhD., Technical Process Director



Certifying Officer:

Paul Gaines
PhD., Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number 010105).


2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution

Catalog Number: STLDEN-SPK-3A

Lot Number: J2-MEB571140

Matrix: 3% (v/v) HNO₃

Value / Analyte(s): 5 000 µg/mL ea:

Ca, K, Mg, Na,

1 000 µg/mL ea:

P,

200 µg/mL ea:

Al, Ba, Bi, Se,

Tl, U,

100 µg/mL ea:

As, Fe, Li, Sr,

Th,

50 µg/mL ea:

Co, Mn, Ni, Pb,

V, Zn,

25 µg/mL ea:

Cu,

20 µg/mL ea:

Cr³⁺,

10 µg/mL ea:

Cd,

5 µg/mL ea:

Ag, Be


3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	200.0 ± 1.0 µg/mL	Arsenic, As	100.0 ± 0.8 µg/mL
Barium, Ba	199.9 ± 1.0 µg/mL	Beryllium, Be	5.000 ± 0.028 µg/mL
Bismuth, Bi	200.0 ± 1.2 µg/mL	Cadmium, Cd	10.00 ± 0.05 µg/mL
Calcium, Ca	5 000 ± 23 µg/mL	Chromium+3, Cr3	20.00 ± 0.10 µg/mL
Cobalt, Co	50.00 ± 0.25 µg/mL	Copper, Cu	25.00 ± 0.11 µg/mL
Iron, Fe	100.0 ± 0.5 µg/mL	Lead, Pb	50.00 ± 0.26 µg/mL
Lithium, Li	100.0 ± 0.7 µg/mL	Magnesium, Mg	5 000 ± 23 µg/mL
Manganese, Mn	50.00 ± 0.23 µg/mL	Nickel, Ni	50.00 ± 0.33 µg/mL
Phosphorus, P	1 000 ± 5 µg/mL	Potassium, K	5 000 ± 22 µg/mL
Selenium, Se	200.0 ± 1.3 µg/mL	Silver, Ag	5.000 ± 0.036 µg/mL
Sodium, Na	5 000 ± 22 µg/mL	Strontium, Sr	100.0 ± 0.6 µg/mL
Thallium, Tl	200.0 ± 1.6 µg/mL	Thorium, Th	100.0 ± 0.5 µg/mL
Uranium, U	200.0 ± 1.4 µg/mL	Vanadium, V	50.00 ± 0.24 µg/mL
Zinc, Zn	50.00 ± 0.23 µg/mL		

Certified Density: 1.083 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
As	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	090514
Bi	Calculated		See Sec. 4.2
Bi	ICP Assay	3106	991212
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3181	000630
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Li	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	Gravimetric		See Sec. 4.2
Na	ICP Assay	3152a	120715
Ni	ICP Assay	3136	000612
Ni	EDTA	928	928
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Th	ICP Assay	3159	992912
Th	EDTA	928	928
Tl	ICP Assay	3158	993012
U	Calculated		See Sec. 4.2
U	ICP Assay	3164	080521
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Certified Value $(\bar{x}) = \frac{\sum x_i}{n}$

(\bar{x}) = mean
 x_i = individual results
 n = number of measurements

Uncertainty $(\pm) = 2 [\sum (s_i)^2]^{1/2}$

2 = the coverage factor.
 $[\sum (s_i)^2]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

Certified Abundance:

IV's Certified Abundance	
Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.21 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Keep cap tightly sealed when not in use. Store and use at 20 ± 4° C. Do not pipette from the container. Do not return removed aliquots to container.

Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

Uranium Note: If uranium is present in this standard, it is natural abundance unless specified in Section 3.0

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 26, 2015

11.2 Expiration Date

EXPIRES
1 2016

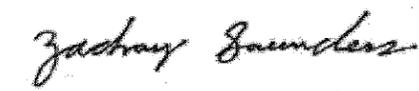
11.3 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Zach Saunders
Product Documentation Technician



Certificate Approved By:

Brian Alexander
PhD., Technical Process Director



Certifying Officer:

Paul Gaines
PhD., Senior Technical Director



-00012

Sample Name: ICSA@10 Acquired: 12/31/2014 16:08:51 Type: Unk
Method: 6500_026(v8) Mode: CONC Corr. Factor: 1.000000
User: Scottsa Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Line	328.068 (103)	309.271 (109)	189.042 (478)	208.959 (461)	455.403 (74)	313.042 (108)	223.061 (451)	317.933 (106)	228.802 (447)	228.616 (447)	205.552 (464)	324.754 (104)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0061	RW 525.87	.00909	.00663	.00037	-0.0018	-0.0452	475.02	.00132	-0.0020	.00267	.00409
Stddev	.00022	.05	.00179	.00106	.00006	.00003	.00167	2.39	.00008	.00039	.00019	.00049
%RSD	36.535	.00992	19.660	16.046	17.327	15.963	36.886	.50357	5.7484	191.87	7.1335	11.866

#1	-0.0076	525.83	.01036	.00738	.00032	-0.0016	-0.0334	476.71	.00138	-0.0048	.00254	.00443
#2	-0.0045	525.91	.00783	.00588	.00041	-0.0020	-0.0570	473.33	.00127	.00007	.00281	.00375

Check ?	Chk Pass	Chk Warn	Chk Pass									
High Limit		500.00										
Low Limit		4.0000										

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Line	271.441 (124)	766.490 (44)	670.784 (50)	279.079 (121)2	257.610 (131)	202.030 (467)	589.592 (57)	231.604 (446)	178.284 (489)	220.353 (453)	182.034 (485)	206.833 (463)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	197.64	-13273	-0.00344	RW 508.19	.00116	-0.00264	.02989	.00147	-0.01288	.00086	-1.8440	.00867
Stddev	.12	.09360	.00241	2.76	.00000	.00002	.00014	.00019	.00191	.00058	.00055	.00260
%RSD	.05887	70.514	70.039	.54312	.36681	.92686	.46012	12.650	14.801	68.217	.30034	29.992

#1	197.72	-.06655	-.00174	506.24	.00115	-.00266	.02979	.00161	-.01423	.00127	-.18401	.01051
#2	197.55	-.19892	-.00514	510.15	.00116	-.00263	.02999	.00134	-.01153	.00044	-.18479	.00683

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass							
High Limit				500.00							None	
Low Limit				-.10000								

Elem	Se1960	Si2881	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	196.090 (472)	288.158 (117)	189.989 (477)	407.771 (83)	283.730 (119)	334.904 (101)	190.856 (477)	370.152 (91)	292.402 (115)	206.200 (163)	339.198 (99)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.01024	.03086	-.00358	.00477	-.00712	.00030	.00395	.11075	.00264	.00392	.00293
Stddev	.01564	.01048	.00034	.00010	.00283	.00033	.00250	.00506	.00062	.00043	.00082
%RSD	152.74	33.952	9.3550	2.0261	39.795	108.64	63.240	4.5689	23.414	11.075	28.057

#1	-.02129	.03827	-.00335	.00484	-.00912	.00007	.00572	.11432	.00308	.00423	.00351
#2	.00082	.02345	-.00382	.00470	-.00511	.00053	.00219	.10717	.00220	.00361	.00235

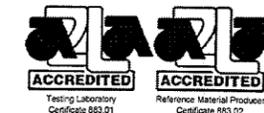
Check ?	Chk Fail	Chk Pass									
High Limit	50.000										
Low Limit	-.01000										

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 (450)	360.073 (94)	377.433 (89)
Units	Cts/S	Cts/S	Cts/S
Avg	3646.6	61943.	4289.4
Stddev	4.4	68.	.7
%RSD	.12078	.10971	.01543

#1	3649.7	61991.	4289.9
#2	3643.5	61895.	4288.9

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (SAI Global File Number (010105)).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: CLPP-ICS-A
 Lot Number: H2-MEB525068
 Matrix: 2% (v/v) HNO₃
 Value / Analyte(s):
 5 000 µg/mL ea: Al, Ca, Mg,
 2 000 µg/mL ea: Fe

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum	5 001 ± 25 µg/mL	Calcium	5 001 ± 23 µg/mL
Iron	2 000 ± 9 µg/mL	Magnesium	5 001 ± 32 µg/mL

Certified Density: 1.086 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

(\bar{x}) = mean
 x_i = individual results
 n = number of measurements

$$\text{Uncertainty } (\pm) = 2 \left[\sum (s_i)^2 \right]^{1/2}$$

2 = the coverage factor.
 $\left[\sum (s_i)^2 \right]^{1/2}$ = The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an UHPA-Filtered Clean Room. An UHPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000401	M Er < 0.000100	M Mn < 0.003106	O S < 0.466980	M V < 0.000401
s Al < 0.000200	M Eu < 0.000100	M Mo < 0.000501	M Sb < 0.000301	M W < 0.000301
M As < 0.004008	s Fe < 0.000100	O Na < 0.062011	O Sc < 0.000543	M Y < 0.000100
M Au < 0.000200	M Ga < 0.000100	M Nb < 0.000100	M Se < 0.002505	M Yb < 0.000100
O B < 0.012272	M Gd < 0.000100	M Nd < 0.000501	O Si < 0.095025	M Zn < 0.017634
O Ba < 0.001086	O Ge < 0.032580	O Ni < 0.005430	M Sm < 0.000100	M Zr < 0.000601
O Be < 0.000217	M Hf < 0.000100	M Os < 0.000200	M Sn < 0.000200	
M Bi < 0.000301	M Hg < 0.000400	O P < 0.108600	M Sr < 0.045788	
s Ca < 0.000100	M Ho < 0.000100	M Pb < 0.004709	M Ta < 0.000100	
M Cd < 0.000100	M In < 0.000401	M Pd < 0.000100	M Tb < 0.000100	
M Ce < 0.002004	M Ir < 0.000100	M Pr < 0.000100	M Te < 0.000100	
O Co < 0.004344	O K < 0.022806	M Pt < 0.000100	M Th < 0.000100	
M Cr < 0.026251	M La < 0.001002	M Rb < 0.000200	O Ti < 0.002172	
M Cs < 0.000301	O Li < 0.015313	M Re < 0.000100	M Tl < 0.000100	
O Cu < 0.001086	M Lu < 0.000100	M Rh < 0.000100	M Tm < 0.000100	
M Dy < 0.000100	s Mg < 0.000100	M Ru < 0.000100	M U < 0.000100	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Keep tightly sealed when not in use. Store and use at 20 ± 4°C. Do not pipette from the container. Do not return removed aliquots to container.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

10.4 ISO/IEC Guide 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO/IEC Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 29, 2014

11.2 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.3. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

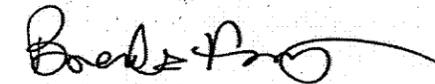
11.3 Expiration Date

EXPIRES
1-2016

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

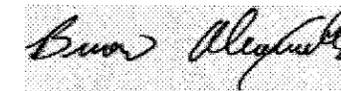
Certificate Prepared By:

Brenda Francis
Product Documentation Technician



Certificate Approved By:

Brian Alexander
PhD., Technical Process Director



Certifying Officer:

Paul Gaines
PhD., Senior Technical Director





110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

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Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567641.sec - 00010 **Lot No.:** A093733

Description : 8260 List 1 / Std #1 MegaMix
8260 List 1 / Std #1 MegaMix 1,000-50,000 µg/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 2016 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Diethyl ether (ethyl ether)	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 60-29-7.SEC		+/-	44.2531	µg/mL	Unstressed
	Purity 99%		+/-	44.4335	µg/mL	Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113)	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 76-13-1.SEC		+/-	44.2531	µg/mL	Unstressed
	Purity 99%		+/-	44.4335	µg/mL	Stressed
3	1,1-Dichloroethene	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 75-35-4.SEC		+/-	44.2531	µg/mL	Unstressed
	Purity 99%		+/-	44.4335	µg/mL	Stressed
4	tert-Butanol (TBA)	20,000.0 µg/mL	+/-	116.2756	µg/mL	Gravimetric
	CAS # 75-65-0.SEC		+/-	442.5291	µg/mL	Unstressed
	Purity 99%		+/-	444.3332	µg/mL	Stressed
5	Iodomethane (methyl iodide)	2,000.0 µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 74-88-4.SEC		+/-	44.2540	µg/mL	Unstressed
	Purity 97%		+/-	44.4344	µg/mL	Stressed
6	Allyl chloride (3-chloropropene)	2,000.0 µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 107-05-1.SEC		+/-	44.2527	µg/mL	Unstressed
	Purity 98%		+/-	44.4331	µg/mL	Stressed
7	Methyl acetate	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 79-20-9.SEC		+/-	221.2646	µg/mL	Unstressed
	Purity 99%		+/-	222.1666	µg/mL	Stressed
8	Carbon disulfide	2,000.0 µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 75-15-0.SEC		+/-	44.2527	µg/mL	Unstressed
	Purity 98%		+/-	44.4331	µg/mL	Stressed
9	Methylene chloride (dichloromethane)	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 75-09-2.SEC		+/-	44.2531	µg/mL	Unstressed
	Purity 99%		+/-	44.4335	µg/mL	Stressed

10	Acrylonitrile CAS # 107-13-1.SEC Purity 99%	20,000.0	µg/mL	+/- 116.2756 +/- 442.5291 +/- 444.3332	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	Methyl-tert-butyl ether (MTBE) CAS # 1634-04-4.SEC Purity 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	cis-1,2-Dichloroethene CAS # 156-59-2.SEC Purity 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Hexane (C6) CAS # 110-54-3.SEC Purity 98%	2,000.1	µg/mL	+/- 11.6286 +/- 44.2549 +/- 44.4353	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	1,1-Dichloroethane CAS # 75-34-3.SEC Purity 97%	2,000.0	µg/mL	+/- 11.6284 +/- 44.2540 +/- 44.4344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	2,2-Dichloropropane CAS # 594-20-7.SEC Purity 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	trans-1,2-Dichloroethene CAS # 156-60-5.SEC Purity 97%	2,000.0	µg/mL	+/- 11.6284 +/- 44.2540 +/- 44.4344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Chloroform CAS # 67-66-3.SEC Purity 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	Isobutanol (2-Methyl-1-propanol) CAS # 78-83-1.SEC Purity 99%	50,000.0	µg/mL	+/- 290.6891 +/- 1,106.3228 +/- 1,110.8331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Bromochloromethane CAS # 74-97-5.SEC Purity 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	Tetrahydrofuran CAS # 109-99-9.SEC Purity 99%	4,000.0	µg/mL	+/- 23.2563 +/- 88.5061 +/- 88.8670	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	1,1,1-Trichloroethane CAS # 71-55-6.SEC Purity 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	Cyclohexane CAS # 110-82-7.SEC Purity 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	1,1-Dichloropropene CAS # 563-58-6.SEC Purity 98%	2,010.5	µg/mL	+/- 11.6890 +/- 44.4847 +/- 44.6661	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
24	Carbon tetrachloride CAS # 56-23-5.SEC Purity 98%	2,000.1	µg/mL	+/- 11.6286 +/- 44.2549 +/- 44.4353	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	n-Heptane (C7) CAS # 142-82-5.SEC Purity 99%	2,000.1	µg/mL	+/- 11.6288 +/- 44.2553 +/- 44.4357	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	Benzene CAS # 71-43-2.SEC Purity 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	1,2-Dichloroethane CAS # 107-06-2.SEC Purity 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Trichloroethene CAS # 79-01-6.SEC Purity 98%	2,000.1	µg/mL	+/- 11.6286 +/- 44.2549 +/- 44.4353	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

29	Methylcyclohexane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 108-87-2.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
30	1,2-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 78-87-5.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
31	1,4-Dioxane	40,000.0	µg/mL	+/-	232.5513	µg/mL	Gravimetric	
	CAS # 123-91-1.SEC			+/-	885.0582		µg/mL	Unstressed
	Purity 99%			+/-	888.6665		µg/mL	Stressed
32	Dibromomethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 74-95-3.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
33	Bromodichloromethane	2,000.1	µg/mL	+/-	11.6290	µg/mL	Gravimetric	
	CAS # 75-27-4.SEC			+/-	44.2562		µg/mL	Unstressed
	Purity 97%			+/-	44.4366		µg/mL	Stressed
34	cis-1,3-Dichloropropene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 10061-01-5.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
35	Toluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 108-88-3.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
36	Ethyl methacrylate	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 97-63-2.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
37	trans-1,3-Dichloropropene	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric	
	CAS # 10061-02-6.SEC			+/-	44.2527		µg/mL	Unstressed
	Purity 98%			+/-	44.4331		µg/mL	Stressed
38	1,1,2-Trichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 79-00-5.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
39	1,3-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 142-28-9.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
40	Tetrachloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 127-18-4.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
41	Dibromochloromethane	2,000.1	µg/mL	+/-	11.6290	µg/mL	Gravimetric	
	CAS # 124-48-1.SEC			+/-	44.2562		µg/mL	Unstressed
	Purity 97%			+/-	44.4366		µg/mL	Stressed
42	1,2-Dibromoethane (EDB)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 106-93-4.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
43	Chlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 108-90-7.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
44	1,1,1,2-Tetrachloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 630-20-6.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
45	m-Xylene	1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric	
	CAS # 108-38-3.SEC			+/-	22.1265		µg/mL	Unstressed
	Purity 99%			+/-	22.2167		µg/mL	Stressed
46	p-Xylene	1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric	
	CAS # 106-42-3.SEC			+/-	22.1265		µg/mL	Unstressed
	Purity 99%			+/-	22.2167		µg/mL	Stressed
47	o-Xylene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 95-47-6.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed

48	Ethylbenzene CAS # 100-41-4.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	Styrene CAS # 100-42-5.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	Isopropylbenzene (cumene) CAS # 98-82-8.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	Bromoform CAS # 75-25-2.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	1,1,2,2-Tetrachloroethane CAS # 79-34-5.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	1,2,3-Trichloropropane CAS # 96-18-4.SEC Purity 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	trans-1,4-Dichloro-2-butene CAS # 110-57-6.SEC Purity 97%	2,000.0 µg/mL	+/- 11.6284 +/- 44.2540 +/- 44.4344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	n-Propylbenzene CAS # 103-65-1.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
56	Bromobenzene CAS # 108-86-1.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	1,3,5-Trimethylbenzene CAS # 108-67-8.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	2-Chlorotoluene CAS # 95-49-8.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4-Chlorotoluene CAS # 106-43-4.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	tert-Butylbenzene CAS # 98-06-6.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	1,2,4-Trimethylbenzene CAS # 95-63-6.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	sec-Butylbenzene CAS # 135-98-8.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	4-Isopropyltoluene (p-cymene) CAS # 99-87-6.SEC Purity 96%	2,000.1 µg/mL	+/- 11.6285 +/- 44.2545 +/- 44.4349	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	1,3-Dichlorobenzene CAS # 541-73-1.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	1,4-Dichlorobenzene CAS # 106-46-7.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	n-Butylbenzene CAS # 104-51-8.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

67	1,2-Dichlorobenzene CAS # 95-50-1.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane CAS # 96-12-8.SEC Purity 97%	2,000.0 µg/mL	+/- 11.6284 +/- 44.2540 +/- 44.4344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene CAS # 120-82-1.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene CAS # 87-68-3.SEC Purity 97%	2,000.0 µg/mL	+/- 11.6284 +/- 44.2540 +/- 44.4344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene CAS # 91-20-3.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
72	1,2,3-Trichlorobenzene CAS # 87-61-6.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x .25mm x 1.4µm
Rtx-502.2 (cat.#10916)

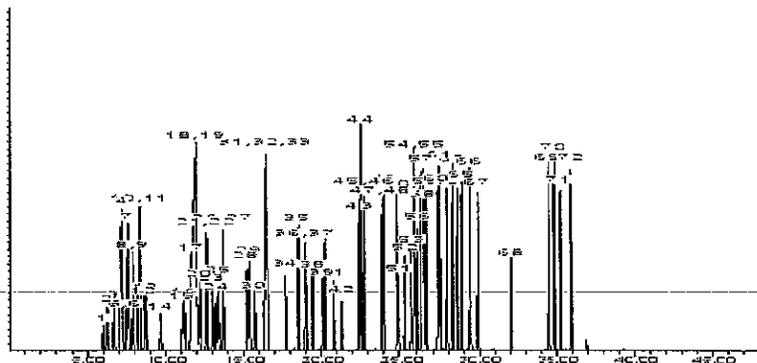
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



Jennifer L. Pollino
Jennifer L. Pollino - QC Analyst

Date Passed: 01-Mar-2013

Balance: 1127510105

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397



110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

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Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

*Received
6/2/14*

Catalog No. : 567641 - 00014 Lot No.: A093581
 Description : 8260 List 1 / Std #1 MegaMix
8260 List 1 / Std #1 MegaMix 1000-50,000 µg/ml, P&T Methanol, 1 ml/ampul
 Container Size : 2 mL Pkg Amt: > 1 mL
 Expiration Date : February 2016 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Diethyl ether (ethyl ether)	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 60-29-7		+/-	44.2531	µg/mL	Unstressed
	Purity 99%		+/-	44.4335	µg/mL	Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113)	1,999.9 µg/mL	+/-	11.6279	µg/mL	Gravimetric
	CAS # 76-13-1		+/-	44.2519	µg/mL	Unstressed
	Purity 97%		+/-	44.4323	µg/mL	Stressed
3	1,1-dichloroethene	2,000.0 µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 75-35-4		+/-	44.2527	µg/mL	Unstressed
	Purity 98%		+/-	44.4331	µg/mL	Stressed
4	tert-Butanol (TBA)	20,000.0 µg/mL	+/-	116.2756	µg/mL	Gravimetric
	CAS # 75-65-0		+/-	442.5291	µg/mL	Unstressed
	Purity 99%		+/-	444.3332	µg/mL	Stressed
5	Iodomethane (methyl iodide)	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 74-88-4		+/-	44.2531	µg/mL	Unstressed
	Purity 99%		+/-	44.4335	µg/mL	Stressed
6	Allyl chloride (3-chloropropene)	2,000.0 µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 107-05-1		+/-	44.2527	µg/mL	Unstressed
	Purity 98%		+/-	44.4331	µg/mL	Stressed
7	Methyl acetate	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 79-20-9		+/-	221.2646	µg/mL	Unstressed
	Purity 99%		+/-	222.1666	µg/mL	Stressed
8	Carbon disulfide	2,000.0 µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 75-15-0		+/-	44.2527	µg/mL	Unstressed
	Purity 98%		+/-	44.4331	µg/mL	Stressed
9	Methylene chloride (dichloromethane)	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 75-09-2		+/-	44.2531	µg/mL	Unstressed
	Purity 99%		+/-	44.4335	µg/mL	Stressed

10	Acrylonitrile	20,000.0	$\mu\text{g/mL}$	+/-	116.2756	$\mu\text{g/mL}$	Gravimetric
	CAS # 107-13-1			+/-	442.5291	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	444.3332	$\mu\text{g/mL}$	Stressed
11	Methyl-tert-butyl ether (MTBE)	2,000.0	$\mu\text{g/mL}$	+/-	11.6282	$\mu\text{g/mL}$	Gravimetric
	CAS # 1634-04-4			+/-	44.2531	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	44.4335	$\mu\text{g/mL}$	Stressed
12	cis-1,2-Dichloroethene	2,000.0	$\mu\text{g/mL}$	+/-	11.6282	$\mu\text{g/mL}$	Gravimetric
	CAS # 156-59-2			+/-	44.2531	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	44.4335	$\mu\text{g/mL}$	Stressed
13	n-Hexane (C6)	2,000.0	$\mu\text{g/mL}$	+/-	11.6282	$\mu\text{g/mL}$	Gravimetric
	CAS # 110-54-3			+/-	44.2531	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	44.4335	$\mu\text{g/mL}$	Stressed
14	1,1-Dichloroethane	2,000.0	$\mu\text{g/mL}$	+/-	11.6281	$\mu\text{g/mL}$	Gravimetric
	CAS # 75-34-3			+/-	44.2527	$\mu\text{g/mL}$	Unstressed
	Purity 98%			+/-	44.4331	$\mu\text{g/mL}$	Stressed
15	2,2-Dichloropropane	2,000.0	$\mu\text{g/mL}$	+/-	11.6281	$\mu\text{g/mL}$	Gravimetric
	CAS # 594-20-7			+/-	44.2527	$\mu\text{g/mL}$	Unstressed
	Purity 98%			+/-	44.4331	$\mu\text{g/mL}$	Stressed
16	trans-1,2-Dichloroethene	2,000.0	$\mu\text{g/mL}$	+/-	11.6282	$\mu\text{g/mL}$	Gravimetric
	CAS # 156-60-5			+/-	44.2531	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	44.4335	$\mu\text{g/mL}$	Stressed
17	chloroform	2,000.0	$\mu\text{g/mL}$	+/-	11.6282	$\mu\text{g/mL}$	Gravimetric
	CAS # 67-66-3			+/-	44.2531	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	44.4335	$\mu\text{g/mL}$	Stressed
18	Isobutanol (2-Methyl-1-propanol)	50,000.0	$\mu\text{g/mL}$	+/-	290.6891	$\mu\text{g/mL}$	Gravimetric
	CAS # 78-83-1			+/-	1,106.3228	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	1,110.8331	$\mu\text{g/mL}$	Stressed
19	Bromochloromethane	2,000.0	$\mu\text{g/mL}$	+/-	11.6282	$\mu\text{g/mL}$	Gravimetric
	CAS # 74-97-5			+/-	44.2531	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	44.4335	$\mu\text{g/mL}$	Stressed
20	Tetrahydrofuran	4,000.0	$\mu\text{g/mL}$	+/-	23.2563	$\mu\text{g/mL}$	Gravimetric
	CAS # 109-99-9			+/-	88.5061	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	88.8670	$\mu\text{g/mL}$	Stressed
21	1,1,1-trichloroethane	2,000.0	$\mu\text{g/mL}$	+/-	11.6282	$\mu\text{g/mL}$	Gravimetric
	CAS # 71-55-6			+/-	44.2531	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	44.4335	$\mu\text{g/mL}$	Stressed
22	Cyclohexane	2,000.0	$\mu\text{g/mL}$	+/-	11.6281	$\mu\text{g/mL}$	Gravimetric
	CAS # 110-82-7			+/-	44.2527	$\mu\text{g/mL}$	Unstressed
	Purity 98%			+/-	44.4331	$\mu\text{g/mL}$	Stressed
23	1,1-Dichloropropene	2,000.0	$\mu\text{g/mL}$	+/-	11.6282	$\mu\text{g/mL}$	Gravimetric
	CAS # 563-58-6			+/-	44.2531	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	44.4335	$\mu\text{g/mL}$	Stressed
24	carbon tetrachloride	2,000.0	$\mu\text{g/mL}$	+/-	11.6282	$\mu\text{g/mL}$	Gravimetric
	CAS # 56-23-5			+/-	44.2531	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	44.4335	$\mu\text{g/mL}$	Stressed
25	n-Heptane (C7)	2,000.0	$\mu\text{g/mL}$	+/-	11.6282	$\mu\text{g/mL}$	Gravimetric
	CAS # 142-82-5			+/-	44.2531	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	44.4335	$\mu\text{g/mL}$	Stressed
26	Benzene	2,000.0	$\mu\text{g/mL}$	+/-	11.6282	$\mu\text{g/mL}$	Gravimetric
	CAS # 71-43-2			+/-	44.2531	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	44.4335	$\mu\text{g/mL}$	Stressed
27	1,2-Dichloroethane	2,000.0	$\mu\text{g/mL}$	+/-	11.6282	$\mu\text{g/mL}$	Gravimetric
	CAS # 107-06-2			+/-	44.2531	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	44.4335	$\mu\text{g/mL}$	Stressed
28	Trichloroethene	2,000.0	$\mu\text{g/mL}$	+/-	11.6282	$\mu\text{g/mL}$	Gravimetric
	CAS # 79-01-6			+/-	44.2531	$\mu\text{g/mL}$	Unstressed
	Purity 99%			+/-	44.4335	$\mu\text{g/mL}$	Stressed

29	Methylcyclohexane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 108-87-2			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
30	1,2-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 78-87-5			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
31	1,4-Dioxane	40,000.0	µg/mL	+/-	232.5513	µg/mL	Gravimetric	
	CAS # 123-91-1			+/-	885.0582		µg/mL	Unstressed
	Purity 99%			+/-	888.6665		µg/mL	Stressed
32	Dibromomethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 74-95-3			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
33	bromodichloromethane	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric	
	CAS # 75-27-4			+/-	44.2540		µg/mL	Unstressed
	Purity 97%			+/-	44.4344		µg/mL	Stressed
34	cis-1,3-Dichloropropene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 10061-01-5			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
35	Toluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 108-88-3			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
36	Ethyl methacrylate	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 97-63-2			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
37	trans-1,3-Dichloropropene	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric	
	CAS # 10061-02-6			+/-	44.2540		µg/mL	Unstressed
	Purity 97%			+/-	44.4344		µg/mL	Stressed
38	1,1,2-Trichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 79-00-5			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
39	1,3-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 142-28-9			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
40	Tetrachloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 127-18-4			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
41	dibromochloromethane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric	
	CAS # 124-48-1			+/-	44.2527		µg/mL	Unstressed
	Purity 98%			+/-	44.4331		µg/mL	Stressed
42	1,2-Dibromoethane (EDB)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 106-93-4			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
43	Chlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 108-90-7			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
44	1,1,1,2-Tetrachloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 630-20-6			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
45	m-Xylene	1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric	
	CAS # 108-38-3			+/-	22.1265		µg/mL	Unstressed
	Purity 99%			+/-	22.2167		µg/mL	Stressed
46	p-Xylene	1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric	
	CAS # 106-42-3			+/-	22.1265		µg/mL	Unstressed
	Purity 99%			+/-	22.2167		µg/mL	Stressed
47	o-Xylene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 95-47-6			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed

48	Ethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 100-41-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
49	Styrene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 100-42-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
50	Isopropylbenzene (cumene)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 98-82-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
51	bromoform	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 75-25-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
52	1,1,2,2-Tetrachloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 79-34-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
53	1,2,3-Trichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 96-18-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
54	trans-1,4-dichloro-2-butene	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 110-57-6			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
55	n-Propylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 103-65-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
56	Bromobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-86-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
57	1,3,5-Trimethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-67-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
58	2-Chlorotoluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-49-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
59	4-Chlorotoluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-43-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
60	tert-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 98-06-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
61	1,2,4-Trimethylbenzene	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 95-63-6			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
62	sec-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 135-98-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
63	4-Isopropyltoluene (p-Cymene)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 99-87-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
64	1,3-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 541-73-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
65	1,4-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-46-7			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
66	n-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 104-51-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed



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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567642.SEC -00015 Lot No.: A0101295

Description : 8260 List 1 / Std #2 Ketones

8260/624 Ketones Standard 10,000 ug/ml, P&T Methanol/Water (90:10), 1 ml/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : February 28, 2017 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone	10,015.2 µg/mL	+/-	58.6412	µg/mL	Gravimetric
	CAS # 67-64-1.SEC (Lot 0902033)		+/-	533.0320	µg/mL	Unstressed
	Purity 99%		+/-	533.6197	µg/mL	Stressed
2	2-Butanone (MEK)	10,010.0 µg/mL	+/-	58.6108	µg/mL	Gravimetric
	CAS # 78-93-3.SEC (Lot VEGGI)		+/-	532.7553	µg/mL	Unstressed
	Purity 99%		+/-	533.3427	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	10,012.4 µg/mL	+/-	58.6248	µg/mL	Gravimetric
	CAS # 108-10-1.SEC (Lot E29T040)		+/-	532.8830	µg/mL	Unstressed
	Purity 99%		+/-	533.4706	µg/mL	Stressed
4	2-Hexanone	10,016.4 µg/mL	+/-	58.6482	µg/mL	Gravimetric
	CAS # 591-78-6.SEC (Lot ZSVCD-FF)		+/-	533.0959	µg/mL	Unstressed
	Purity 99%		+/-	533.6837	µg/mL	Stressed
Solvent:	P&T Methanol/Water (90:10)					
	CAS # 67-56-1/7732-18-5					
	Purity 99%					



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Catalog No. : 567642 Lot No.: A093365

Description : 8260 List 1 / Std #2 Ketones
8260 List 1 / Std #2 Ketones 10,000 ug/ml, P&T Methanol/Water (90:10), 1 ml/ampul

Container Size : 2 ml Pkg Amt: > 1 mL
 Expiration Date : February 2016 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 67-64-1		+/-	798.6896	µg/mL	Unstressed
	Purity 99%		+/-	799.0807	µg/mL	Stressed
2	2-Butanone (MEK)	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 78-93-3		+/-	798.6896	µg/mL	Unstressed
	Purity 99%		+/-	799.0807	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 108-10-1		+/-	798.6896	µg/mL	Unstressed
	Purity 99%		+/-	799.0807	µg/mL	Stressed
4	2-Hexanone	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 591-78-6		+/-	798.6896	µg/mL	Unstressed
	Purity 99%		+/-	799.0807	µg/mL	Stressed

Solvent: P&T Methanol/Water (90:10)
 CAS # 67-56-1/7732-18-5
 Purity 99%



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2x/mL
 REC 10/23/13
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Catalog No. : 567643 Lot No.: A093368

Description : 8260 List 1 / Std #4 2-Chloroethylvinyl Ether

8260 List 1 / Std #4 2-Chloroethylvinyl Ether 2,000 ug/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 mL

Pkg Amt: > 1 mL

Expiration Date : February 2016

Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
I	2-Chloroethyl vinyl ether	2,000.0 µg/mL	+/- 11.6282	µg/mL	Gravimetric
	CAS # 110-75-8		+/- 44.2531	µg/mL	Unstressed
	Purity 99%		+/- 44.4335	µg/mL	Stressed

Solvent: P&T Methanol
 CAS # 67-56-1
 Purity 99%

Tech Tips:

Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.

Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.



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Catalog No. : 567645.sec - 00017 Lot No.: A099261

Description : 8260 List 1 / Std #3 Gases
8260 List 1 / Std #3 Gases 2,000 ug/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : November 30, 2015 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Dichlorodifluoromethane (CFC-12)	2,002.2 µg/mL	+/-	16.7616	µg/mL	Gravimetric
	CAS # 75-71-8.SEC (Lot 18348)		+/-	21.2987	µg/mL	Unstressed
	Purity 99%		+/-	24.7536	µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,000.6 µg/mL	+/-	15.8216	µg/mL	Gravimetric
	CAS # 74-87-3.SEC (Lot 18343)		+/-	21.2729	µg/mL	Unstressed
	Purity 99%		+/-	24.7262	µg/mL	Stressed
3	Vinyl chloride	2,001.9 µg/mL	+/-	14.6785	µg/mL	Gravimetric
	CAS # 75-01-4.SEC (Lot MKBK6872V)		+/-	21.2759	µg/mL	Unstressed
	Purity 99%		+/-	24.7329	µg/mL	Stressed
4	1,3-Butadiene	2,002.8 µg/mL	+/-	16.7307	µg/mL	Gravimetric
	CAS # 106-99-0.SEC (Lot 18349)		+/-	21.3051	µg/mL	Unstressed
	Purity 99%		+/-	24.7611	µg/mL	Stressed
5	Bromomethane (methyl bromide)	1,999.6 µg/mL	+/-	16.2313	µg/mL	Gravimetric
	CAS # 74-83-9.SEC (Lot Q119-46)		+/-	21.2671	µg/mL	Unstressed
	Purity 99%		+/-	24.7183	µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,001.0 µg/mL	+/-	14.6721	µg/mL	Gravimetric
	CAS # 75-00-3.SEC (Lot Q18B-13)		+/-	21.2666	µg/mL	Unstressed
	Purity 99%		+/-	24.7221	µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,004.4 µg/mL	+/-	15.1665	µg/mL	Gravimetric
	CAS # 75-43-4.SEC (Lot SHBC0858V)		+/-	21.3071	µg/mL	Unstressed
	Purity 99%		+/-	24.7678	µg/mL	Stressed
8	Trichlorofluoromethane (CFC-11)	2,001.8 µg/mL	+/-	16.2157	µg/mL	Gravimetric
	CAS # 75-69-4.SEC (Lot Q139-99)		+/-	21.2894	µg/mL	Unstressed
	Purity 99%		+/-	24.7442	µg/mL	Stressed



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2x/mL REC 1/6/15

GM



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Catalog No. : 567645 Lot No.: A0105755

Description : 8260 List 1 / Std #3 Gases
8260 List 1 / Std #3 Gases 2,000 ug/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 ml Pkg Amt: > 1 mL

Expiration Date : September 30, 2016 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Dichlorodifluoromethane (CFC-12)	1,996.9 µg/mL	+/-	16.4920	µg/mL	Gravimetric
	CAS # 75-71-8 (Lot Q16A-86)		+/-	25.3820	µg/mL	Unstressed
	Purity 99%		+/-	28.4359	µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,003.6 µg/mL	+/-	13.5945	µg/mL	Gravimetric
	CAS # 74-87-3 (Lot SHBC8470V)		+/-	23.6556	µg/mL	Unstressed
	Purity 99%		+/-	26.9268	µg/mL	Stressed
3	Vinyl chloride	2,001.1 µg/mL	+/-	27.3546	µg/mL	Gravimetric
	CAS # 75-01-4 (Lot 17542)		+/-	33.4976	µg/mL	Unstressed
	Purity 99%		+/-	35.8765	µg/mL	Stressed
4	1,3-Butadiene	1,999.9 µg/mL	+/-	23.4547	µg/mL	Gravimetric
	CAS # 106-99-0 (Lot SHBD5808V)		+/-	30.3891	µg/mL	Unstressed
	Purity 99%		+/-	32.9901	µg/mL	Stressed
5	Bromomethane (methyl bromide)	1,998.7 µg/mL	+/-	30.0266	µg/mL	Gravimetric
	CAS # 74-83-9 (Lot 101604)		+/-	35.7004	µg/mL	Unstressed
	Purity 99%		+/-	37.9363	µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,000.1 µg/mL	+/-	18.0935	µg/mL	Gravimetric
	CAS # 75-00-3 (Lot SHBD1717V)		+/-	26.4730	µg/mL	Unstressed
	Purity 99%		+/-	29.4228	µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	1,999.1 µg/mL	+/-	17.9677	µg/mL	Gravimetric
	CAS # 75-43-4 (Lot Q9B-58)		+/-	26.3801	µg/mL	Unstressed
	Purity 99%		+/-	29.3364	µg/mL	Stressed
8	Trichlorofluoromethane (CFC-11)	2,001.1 µg/mL	+/-	24.2299	µg/mL	Gravimetric
	CAS # 75-69-4 (Lot SHBD5121V)		+/-	30.9989	µg/mL	Unstressed
	Purity 99%		+/-	33.5557	µg/mL	Stressed

3x/mL REC 2/24/15
GM



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
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Certificate of Analysis



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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567648 Lot No.: A0108012
 Description : 8260 List 2 / Std #3 Cyclohexanone
8260 List 2 / Std #3 Cyclohexanone 20,000 ug/ml, Water, 1 ml/ampul
 Container Size : 2 mL Pkg Amt: > 1 mL
 Expiration Date : December 31, 2017 Storage: 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Cyclohexanone CAS # 108-94-1 Purity 99% (Lot MKBP7869V)	20,022.0 µg/mL	+/- 117.2332 µg/mL Gravimetric +/- 1,065.6170 µg/mL Unstressed +/- 1,066.7919 µg/mL Stressed

Solvent: Water
CAS # 7732-18-5
Purity 99%



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Certificate of Analysis

5 x 15 mL
 REC 12/29/14



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567650 **Lot No.:** A0105143
Description : 8260 Surrogate Standard
8260 Surrogate Standard 2,500 ug/ml, P&T Methanol, 5 ml/ampul
Container Size : 5 mL **Pkg Amt:** > 5 mL
Expiration Date : August 31, 2019 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Dibromofluoromethane	2,512.4 µg/mL	+/-	14.6073	µg/mL	Gravimetric
	CAS # 1868-53-7 (Lot 022013)		+/-	28.3309	µg/mL	Unstressed
	Purity 99%		+/-	32.6007	µg/mL	Stressed
2	1,2-Dichloroethane-d4	2,506.0 µg/mL	+/-	14.5701	µg/mL	Gravimetric
	CAS # 17060-07-0 (Lot 14C-191)		+/-	28.2587	µg/mL	Unstressed
	Purity 99%		+/-	32.5176	µg/mL	Stressed
3	Toluene-d8	2,499.8 µg/mL	+/-	14.5341	µg/mL	Gravimetric
	CAS # 2037-26-5 (Lot 14C-176)		+/-	28.1888	µg/mL	Unstressed
	Purity 99%		+/-	32.4372	µg/mL	Stressed
4	1-Bromo-4-fluorobenzene (BFB)	2,500.4 µg/mL	+/-	14.5375	µg/mL	Gravimetric
	CAS # 460-00-4 (Lot 20401KOV)		+/-	28.1956	µg/mL	Unstressed
	Purity 99%		+/-	32.4450	µg/mL	Stressed

Solvent: P&T Methanol
 CAS # 67-56-1
 Purity 99%



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Gravimetric Certificate

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BX/mL
REC 8/1/14



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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568034 Lot No.: A0104827

Description : Denver Main Add Ons Standard
Denver Main Add Ons Standard 1,000-30,000 µg/ml, P&T
Methanol/Water (90:10), 1 ml/ampul

Container Size : 2 ml Pkg Amt: > 1 mL

Expiration Date : January 31, 2016 Storage: 0°C or colder

CERTIFIED VALUES

Component #	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1-Chlorohexane	1,000.0 µg/mL	+/-	10.0737	µg/mL	Gravimetric
	CAS # 544-10-5 (Lot 05107LK)		+/-	53.8499	µg/mL	Unstressed
	Purity 99%		+/-	53.9079	µg/mL	Stressed
2	2-Butanol (sec-butyl alcohol)	30,020.0 µg/mL	+/-	277.8107	µg/mL	Gravimetric
	CAS # 78-92-2 (Lot 50296KKV)		+/-	1,612.1523	µg/mL	Unstressed
	Purity 99%		+/-	1,613.8982	µg/mL	Stressed
3	2-Pentanone	4,004.0 µg/mL	+/-	37.2350	µg/mL	Gravimetric
	CAS # 107-87-9 (Lot 1399841)		+/-	215.0566	µg/mL	Unstressed
	Purity 99%		+/-	215.2894	µg/mL	Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

F. Joseph Tallon
F. Joseph Tallon - Mix Technician

Date Mixed: 22-Jul-2014 Balance: B251644995

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397



CERTIFIED REFERENCE MATERIAL

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Gravimetric Certificate



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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568036 - 0007 Lot No.: A0104018

Description : Denver Supp Add Ons Standard #2
Denver Supp Add Ons Standard #2 1,000 µg/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : December 31, 2015 Storage: 0°C or colder

*received
6/18/14*

CERTIFIED VALUES

Component #	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	cis-1,4-Dichloro-2-butene	1,001.0 µg/mL	+/-	10.0842	µg/mL	Gravimetric
	CAS # 1476-11-5 (Lot SHBD5650V)		+/-	13.9728	µg/mL	Unstressed
	Purity 97%		+/-	15.3799	µg/mL	Stressed
2	Tetrahydrothiophene	1,000.0 µg/mL	+/-	10.0737	µg/mL	Gravimetric
	CAS # 110-01-0 (Lot 08905ED)		+/-	13.9583	µg/mL	Unstressed
	Purity 99%		+/-	15.3639	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Kendra Swope - Mix Technician

Date Mixed: 13-Jun-2014 Balance: 1125113331

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568718 - D - 00002 Lot No.: A099955
 Description : 8260 Internal Standard 2014
8260 Internal Standard 2014 250-5,000 ug/ml, P&T Methanol, 5 ml/ampul
 Container Size : 5 mL Pkg Amt: > 5 mL
 Expiration Date : December 31, 2018 Storage: 0°C or colder

received
6/5/14

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	tert-Butyl-d9-alcohol CAS # 25725-11-5 Purity 99% (Lot C158P9)	5,022.0 µg/mL	+/-	29.4049	µg/mL Gravimetric
			+/-	106.5603	µg/mL Unstressed
			+/-	107.0326	µg/mL Stressed
2	2-Butanone-d5 CAS # 24313-50-6 Purity 99% (Lot M276P8)	1,251.0 µg/mL	+/-	7.3416	µg/mL Gravimetric
			+/-	26.5492	µg/mL Unstressed
			+/-	26.6668	µg/mL Stressed
3	Fluorobenzene CAS # 462-06-6 Purity 99% (Lot 1380033)	251.5 µg/mL	+/-	1.4938	µg/mL Gravimetric
			+/-	5.3424	µg/mL Unstressed
			+/-	5.3660	µg/mL Stressed
4	1,4-Dioxane-d8 CAS # 17647-74-4 Purity 99% (Lot 11C-596)	5,002.0 µg/mL	+/-	29.2878	µg/mL Gravimetric
			+/-	106.1359	µg/mL Unstressed
			+/-	106.6064	µg/mL Stressed
5	Chlorobenzene-d5 CAS # 3114-55-4 Purity 99% (Lot PR-22736)	251.0 µg/mL	+/-	1.4909	µg/mL Gravimetric
			+/-	5.3318	µg/mL Unstressed
			+/-	5.3554	µg/mL Stressed
	1,4-Dichlorobenzene-d4 CAS # 3855-82-1 Purity 99% (Lot PR-18488)	251.0 µg/mL	+/-	1.4909	µg/mL Gravimetric
			+/-	5.3318	µg/mL Unstressed
			+/-	5.3554	µg/mL Stressed

REC 3/2/15 GM
2x/mL



CERTIFIED REFERENCE MATERIAL

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Certificate of Analysis



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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568720 Lot No.: A0108734

Description : 8260 List 1/Std #5 Acrolein High
8260 List 1/Std #5 Acrolein High 19,750 µg/mL, Water, 1 mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : May 31, 2015 Storage: 10°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Acrolein CAS # 107-02-8 Purity 99% (Lot 150115JLM)	19,890.0 µg/mL	+/- 116.4603 µg/mL Gravimetric +/- 637.7359 µg/mL Unstressed +/- 741.2982 µg/mL Stressed

Solvent: Water
CAS # 7732-18-5
Purity 99%



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4 x/mL
REC 2/23/15 GM

Certificate of Analysis



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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569724 Lot No.: A0108225

Description : 8260 List 1 / Std #6 Vinyl Acetate (2015)
8260 List 1 / Std #6 Vinyl Acetate (2015) 5000 ug/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 ml Pkg Amt: > 1 mL

Expiration Date : July 31, 2015 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Vinyl acetate CAS # 108-05-4 Purity 99%	5,000.0 µg/mL (Lot STBC8935V)	+/- 29.3428 µg/mL Gravimetric +/- 266.1189 µg/mL Unstressed +/- 266.4123 µg/mL Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.



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4x1mL
REC 2/3/15 Cm



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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No.: 569725 Lot No.: A0108219

Description: 8260 List 2/ Std #1 Additions (2015)
8260 List 2/ Std #1 Additions (2015) 2500-62,500 µg/ml, P&T Methanol, 1 ml/ampul

Container Size: 2 mL Pkg Amt: > 1 mL

Expiration Date: July 31, 2015 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Propanol (isopropanol)	25,013.0 µg/mL	+/-	146.4566 µg/mL	Gravimetric
	CAS # 67-63-0 (Lot SHBC9345V)		+/-	1,331.2495 µg/mL	Unstressed
	Purity 99%		+/-	1,332.7173 µg/mL	Stressed
2	Chloroprene (2-chloro-1,3-butadiene)	2,500.0 µg/mL	+/-	33.4403 µg/mL	Gravimetric
	CAS # 126-99-8 (Lot 140611JLM)		+/-	136.4105 µg/mL	Unstressed
	Purity 99%		+/-	136.5536 µg/mL	Stressed
3	Ethyl acetate	5,001.5 µg/mL	+/-	29.2849 µg/mL	Gravimetric
	CAS # 141-78-6 (Lot SHBF1248V)		+/-	266.1914 µg/mL	Unstressed
	Purity 99%		+/-	266.4849 µg/mL	Stressed
4	Methacrylonitrile	25,011.0 µg/mL	+/-	146.4449 µg/mL	Gravimetric
	CAS # 126-98-7 (Lot 1012014)		+/-	1,331.1430 µg/mL	Unstressed
	Purity 99%		+/-	1,332.6108 µg/mL	Stressed
5	2,2,4-Trimethylpentane (isooctane)	2,505.5 µg/mL	+/-	14.7037 µg/mL	Gravimetric
	CAS # 540-84-1 (Lot SHBB2470V)		+/-	133.3522 µg/mL	Unstressed
	Purity 99%		+/-	133.4992 µg/mL	Stressed
6	1-Butanol	62,530.5 µg/mL	+/-	366.1109 µg/mL	Gravimetric
	CAS # 71-36-3 (Lot SHBF1679V)		+/-	3,328.0152 µg/mL	Unstressed
	Purity 99%		+/-	3,331.6847 µg/mL	Stressed
7	1,4-Difluorobenzene	2,514.0 µg/mL	+/-	14.7536 µg/mL	Gravimetric
	CAS # 540-36-3 (Lot MKBN8571V)		+/-	133.8046 µg/mL	Unstressed
	Purity 99%		+/-	133.9521 µg/mL	Stressed

8	Ethyl acrylate CAS # 140-88-5 Purity 99%	(Lot 10129902)	2,508.0 µg/mL	+/- 14.7183 +/- 133.4852 +/- 133.6324	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Methyl methacrylate CAS # 80-62-6 Purity 99%	(Lot STBD4840V)	5,005.5 µg/mL	+/- 29.3083 +/- 266.4042 +/- 266.6980	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	2-Nitropropane CAS # 79-46-9 Purity 97%	(Lot BCBJ4343V)	5,008.6 µg/mL	+/- 29.3264 +/- 266.5690 +/- 266.8629	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	Butyl acetate CAS # 123-86-4 Purity 99%	(Lot SHBF4442V)	2,503.5 µg/mL	+/- 14.6919 +/- 133.2457 +/- 133.3926	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	1-Chlorohexane CAS # 544-10-5 Purity 98%	(Lot 05107LK)	2,503.4 µg/mL	+/- 14.6914 +/- 133.2409 +/- 133.3878	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	1,2,3-Trimethylbenzene CAS # 526-73-8 Purity 97%	(Lot 877605-14)	2,506.0 µg/mL	+/- 14.7066 +/- 133.3785 +/- 133.5256	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	Benzyl chloride CAS # 100-44-7 Purity 99%	(Lot SHBB7346V)	2,501.0 µg/mL	+/- 14.6773 +/- 133.1127 +/- 133.2594	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	1,3,5-Trichlorobenzene CAS # 108-70-3 Purity 99%	(Lot 11319AS)	2,504.5 µg/mL	+/- 14.6978 +/- 133.2989 +/- 133.4459	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
Solvent:	P&T Methanol CAS # 67-56-1 Purity 99%					



CERTIFIED REFERENCE MATERIAL

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Certificate of Analysis

4 x/mL
REC 2/3/15 One



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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569728 Lot No.: A0108216

Description : 8260 List 3/ Std#1 Polar Additions (2015)
8260 List 3/ Std#1 Polar Additions (2015) 2500-100,000 µg/ml, 1 ml/ampul

Container Size : 2 ml Pkg Amt: > 1 mL

Expiration Date : January 31, 2017 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Ethanol CAS # 64-17-5 (Lot PG0219) Purity 99%	100,006.7 µg/mL	+/- 585.5308 µg/mL	+/- 3,484.8988 µg/mL	+/- 3,604.3075 µg/mL	Gravimetric Unstressed Stressed
2	Acetonitrile CAS # 75-05-8 (Lot SHBB3177V) Purity 99%	25,004.7 µg/mL	+/- 146.4078 µg/mL	+/- 871.3305 µg/mL	+/- 901.1862 µg/mL	Gravimetric Unstressed Stressed
3	Diisopropyl ether (DIPE) CAS # 108-20-3 (Lot SHBB6268V) Purity 99%	2,501.3 µg/mL	+/- 14.6792 µg/mL	+/- 87.1689 µg/mL	+/- 90.1553 µg/mL	Gravimetric Unstressed Stressed
4	Ethyl-tert-butyl ether (ETBE) CAS # 637-92-3 (Lot MKBR1623V) Purity 99%	2,500.7 µg/mL	+/- 14.6753 µg/mL	+/- 87.1456 µg/mL	+/- 90.1313 µg/mL	Gravimetric Unstressed Stressed
5	Propionitrile CAS # 107-12-0 (Lot BCBK0700V) Purity 99%	25,001.3 µg/mL	+/- 146.3883 µg/mL	+/- 871.2144 µg/mL	+/- 901.0661 µg/mL	Gravimetric Unstressed Stressed
6	tert-Amyl alcohol CAS # 75-85-4 (Lot STBB1898V) Purity 99%	25,006.0 µg/mL	+/- 146.4156 µg/mL	+/- 871.3770 µg/mL	+/- 901.2343 µg/mL	Gravimetric Unstressed Stressed
7	tert-Amyl methyl ether (TAME) CAS # 994-05-8 (Lot OS1028/4V) Purity 99%	2,502.0 µg/mL	+/- 14.6831 µg/mL	+/- 87.1921 µg/mL	+/- 90.1793 µg/mL	Gravimetric Unstressed Stressed



Sodium Chloride, Crystal

'BAKER ANALYZED'[®] A.C.S. Reagent

Product No. 3624

Lot No. J48622

Release Date 12/07/2010

Certificate of Analysis

TEST	SPECIFICATION	RESULT
Meets A.C.S. Specifications		
Meets Reagent Specifications for testing USP/NF monographs		
Assay (NaCl) (by Ag titrn)	99.0 % min.	99.7 %
pH of 5% Solution at 25°C	5.0 - 9.0	5.2
Insoluble Matter	0.005 % max.	0.002 %
Iodide (I)	0.002 % max.	< 0.002 %
Bromide (Br)	0.01 % max.	< 0.01 %
Chlorate and Nitrate (as NO ₃)	0.003 % max.	0.002 %
Phosphate (PO ₄)	5 ppm max.	< 3 ppm
Sulfate (SO ₄)	0.004 % max.	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
Heavy Metals (as Pb)	5 ppm max.	< 5 ppm
Iron (Fe)	2 ppm max.	< 2 ppm
Calcium (Ca)	0.002 % max.	0.0006 %
Magnesium (Mg)	0.001 % max.	0.0001 %
Potassium (K)	0.005 % max.	0.001 %

For Laboratory, Research or Manufacturing Use

Country of Origin: USA

ISO

Phillipsburg, NJ 9001:2008 & 14001:2004
 Paris, KY 9001:2008
 Mexico City, Mexico 9001:2008
 Deventer, Holland 9001:2008 & 14001:2004
 Selangor, Malaysia 9001:2008

Murray M. Mathias

Murray M. Mathias
 Director of ISO & Regulatory Affairs

For questions on this Certificate of Analysis please contact Technical Services at 1-800-582-2537 or 908-859-2151

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222 Red School Lane • Phillipsburg, NJ 08865 • Phone: 908.859.2151 • Fax: 908.859.6905

Certification Summary

Client: GSI Environmental, Inc
 Project/Site: GSI - McConnell AFB (SWMU207 - Boeing)

TestAmerica Job ID: 280-69589-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Denver	A2LA	DoD ELAP		2907.01
TestAmerica Denver	A2LA	ISO/IEC 17025		2907.01
TestAmerica Denver	Alaska (UST)	State Program	10	UST-30
TestAmerica Denver	Arizona	State Program	9	AZ0713
TestAmerica Denver	Arkansas DEQ	State Program	6	88-0687
TestAmerica Denver	California	State Program	9	2513
TestAmerica Denver	Connecticut	State Program	1	PH-0686
TestAmerica Denver	Florida	NELAP	4	E87667
TestAmerica Denver	Georgia	State Program	4	N/A
TestAmerica Denver	Illinois	NELAP	5	200017
TestAmerica Denver	Iowa	State Program	7	370
TestAmerica Denver	Kansas	NELAP	7	E-10166
TestAmerica Denver	Louisiana	NELAP	6	02096
TestAmerica Denver	Maine	State Program	1	CO0002
TestAmerica Denver	Minnesota	NELAP	5	8-999-405
TestAmerica Denver	Nevada	State Program	9	CO0026
TestAmerica Denver	New Hampshire	NELAP	1	205310
TestAmerica Denver	New Jersey	NELAP	2	CO004
TestAmerica Denver	New York	NELAP	2	11964
TestAmerica Denver	North Carolina (WW/SW)	State Program	4	358
TestAmerica Denver	North Dakota	State Program	8	R-034
TestAmerica Denver	Oklahoma	State Program	6	8614
TestAmerica Denver	Oregon	NELAP	10	4025
TestAmerica Denver	Pennsylvania	NELAP	3	68-00664
TestAmerica Denver	South Carolina	State Program	4	72002001
TestAmerica Denver	Texas	NELAP	6	T104704183-13-8
TestAmerica Denver	USDA	Federal		P330-13-00202
TestAmerica Denver	Utah	NELAP	8	CO00026
TestAmerica Denver	Virginia	NELAP	3	460232
TestAmerica Denver	Washington	State Program	10	C583
TestAmerica Denver	West Virginia DEP	State Program	3	354
TestAmerica Denver	Wisconsin	State Program	5	999615430
TestAmerica Denver	Wyoming (UST)	A2LA	8	2907.01

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method 8260B

Volatile Organic Compounds (GC/MS)
by Method 8260B

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Matrix: Water Level: Low

GC Column (1): DB-624 (75. ID: 0.53 (mm))

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
54403-TB18-0515	280-69589-1	98	96	98	99
54400-MW54-0515	280-69589-2	100	96	99	100
54401-MW54-0515	280-69589-3	98	95	98	101
	MB 280-279458/6	98	95	100	101
	LCS 280-279458/4	96	97	104	102

DBFM = Dibromofluoromethane (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

QC LIMITS
80-119
81-118
89-112
85-114

Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG No.: _____

Matrix: Water Level: Low

Lab File ID: H3001.D

Lab ID: LCS 280-279458/4

Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	5.08	102	78-124	
1,1,1-Trichloroethane	5.00	4.84	97	74-131	
1,1,2,2-Tetrachloroethane	5.00	4.78	96	71-121	
1,1,2-Trichloroethane	5.00	4.98	100	80-119	
1,1-Dichloroethane	5.00	4.83	97	77-125	
1,1-Dichloroethene	5.00	4.75	95	71-131	
1,1-Dichloropropene	5.00	4.98	100	79-125	
1,2,3-Trichlorobenzene	5.00	5.19	104	69-129	
1,2,3-Trichloropropane	5.00	4.77	95	73-122	
1,2,4-Trichlorobenzene	5.00	5.11	102	69-130	
1,2,4-Trimethylbenzene	5.00	4.72	94	76-124	
1,2-Dibromo-3-Chloropropane	5.00	5.13	103	62-128	
1,2-Dibromoethane	5.00	5.07	101	77-121	
1,2-Dichlorobenzene	5.00	5.01	100	80-119	
1,2-Dichloroethane	5.00	4.89	98	73-128	
1,2-Dichloropropane	5.00	4.80	96	78-122	
1,3,5-Trimethylbenzene	5.00	4.81	96	75-124	
1,3-Dichlorobenzene	5.00	4.58	92	80-119	
1,3-Dichloropropane	5.00	4.84	97	80-119	
1,4-Dichlorobenzene	5.00	5.17	103	79-118	
2,2-Dichloropropane	5.00	4.78	96	60-139	
2-Butanone (MEK)	20.0	21.0	105	56-143	
2-Chlorotoluene	5.00	4.74	95	79-122	
2-Hexanone	20.0	20.9	105	57-139	
4-Chlorotoluene	5.00	4.93	99	78-122	
4-Methyl-2-pentanone (MIBK)	20.0	21.6	108	67-130	
Acetone	20.0	18.1	90	39-160	
Benzene	5.00	5.00	100	79-120	
Bromobenzene	5.00	4.86	97	80-120	
Bromochloromethane	5.00	4.96	99	78-123	
Bromodichloromethane	5.00	4.89	98	79-125	
Bromoform	5.00	5.18	104	66-130	
Bromomethane	5.00	5.40	108	53-141	
Carbon disulfide	5.00	4.62	92	64-133	
Carbon tetrachloride	5.00	4.83	97	72-136	
Chlorobenzene	5.00	5.02	100	82-118	
Chlorodibromomethane	5.00	5.15	103	74-126	
Chloroethane	5.00	5.36	107	60-138	
Chloroform	5.00	4.88	98	79-124	
Chloromethane	5.00	5.32	106	50-139	
cis-1,2-Dichloroethene	5.00	4.80	96	78-123	
cis-1,3-Dichloropropene	5.00	5.19	104	75-124	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: H3001.D
 Lab ID: LCS 280-279458/4 Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dibromomethane	5.00	4.73	95	79-123	
Dichlorodifluoromethane	5.00	5.86	117	32-152	
Ethylbenzene	5.00	4.91	98	79-121	
Hexachlorobutadiene	5.00	4.97	99	66-134	
Isopropylbenzene	5.00	4.83	97	72-131	
Methyl tert-butyl ether	5.00	5.03	101	71-124	
Methylene Chloride	5.00	5.93	119	74-124	
m-Xylene & p-Xylene	5.00	5.11	102	80-121	
Naphthalene	5.00	5.09	102	61-128	
n-Butylbenzene	5.00	4.76	95	75-128	
N-Propylbenzene	5.00	4.79	96	76-126	
o-Xylene	5.00	4.95	99	78-122	
p-Isopropyltoluene	5.00	4.92	98	77-127	
sec-Butylbenzene	5.00	4.73	95	77-126	
Styrene	5.00	4.91	98	78-123	
tert-Butyl alcohol	50.0	54.5	109	68-129	
tert-Butylbenzene	5.00	4.75	95	78-124	
Tetrachloroethene	5.00	5.00	100	74-129	
Toluene	5.00	4.90	98	80-121	
trans-1,2-Dichloroethene	5.00	4.84	97	75-124	
trans-1,3-Dichloropropene	5.00	5.20	104	73-127	
Trichloroethene	5.00	5.05	101	79-123	
Trichlorofluoromethane	5.00	5.50	110	65-141	
Vinyl chloride	5.00	5.41	108	58-137	

Column to be used to flag recovery and RPD values
 FORM III 8260B

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Lab File ID: H3003.D Lab Sample ID: MB 280-279458/6
 Matrix: Water Heated Purge: (Y/N) N
 Instrument ID: VMS_H Date Analyzed: 05/28/2015 21:10
 GC Column: DB-624 (75.53) ID: 0.53 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 280-279458/4	H3001.D	05/28/2015 20:25
54403-TB18-0515	280-69589-1	H3015.D	05/29/2015 01:41
54400-MW54-0515	280-69589-2	H3016.D	05/29/2015 02:04
54401-MW54-0515	280-69589-3	H3017.D	05/29/2015 02:26

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Lab File ID: H2946.D BFB Injection Date: 05/27/2015
 Instrument ID: VMS_H BFB Injection Time: 23:12
 Analysis Batch No.: 279265

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	21.4
75	30.0 - 60.0 % of mass 95	47.5
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.6
173	Less than 2.0 % of mass 174	0.0 (0.0)1
174	50.0 - 120.00 % of mass 95	61.4
175	5.0 - 9.0 % of mass 174	4.3 (7.0)1
176	95.0 - 101.0 % of mass 174	59.7 (97.2)1
177	5.0 - 9.0 % of mass 176	4.5 (7.5)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 280-279265/9	H2949.D	05/28/2015	00:18
	IC 280-279265/10	H2950.D	05/28/2015	00:40
	IC 280-279265/11	H2951.D	05/28/2015	01:03
	IC 280-279265/12	H2952.D	05/28/2015	01:25
	IC 280-279265/13	H2953.D	05/28/2015	01:48
	IC 280-279265/14	H2954.D	05/28/2015	02:10
	IC 280-279265/15	H2955.D	05/28/2015	02:33
	IC 280-279265/16	H2957.D	05/28/2015	03:18
	IC 280-279265/17	H2958.D	05/28/2015	03:40
	IC 280-279265/18	H2959.D	05/28/2015	04:03
	ICIS 280-279265/19	H2960.D	05/28/2015	04:25
	IC 280-279265/20	H2961.D	05/28/2015	04:48
	IC 280-279265/21	H2962.D	05/28/2015	05:10
	ICV 280-279265/23	H2963.D	05/28/2015	05:32

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Lab File ID: H2997.D BFB Injection Date: 05/28/2015
 Instrument ID: VMS_H BFB Injection Time: 18:54
 Analysis Batch No.: 279458

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	21.9
75	30.0 - 60.0 % of mass 95	49.4
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.3
173	Less than 2.0 % of mass 174	0.0 (0.0)1
174	50.0 - 120.00 % of mass 95	61.1
175	5.0 - 9.0 % of mass 174	4.5 (7.4)1
176	95.0 - 101.0 % of mass 174	59.6 (97.5)1
177	5.0 - 9.0 % of mass 176	3.8 (6.3)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 280-279458/2	H2998.D	05/28/2015	19:17
	CCV 280-279458/3	H2999.D	05/28/2015	19:39
	LCS 280-279458/4	H3001.D	05/28/2015	20:25
	MB 280-279458/6	H3003.D	05/28/2015	21:10
54403-TB18-0515	280-69589-1	H3015.D	05/29/2015	01:41
54400-MW54-0515	280-69589-2	H3016.D	05/29/2015	02:04
54401-MW54-0515	280-69589-3	H3017.D	05/29/2015	02:26
	CCVC 280-279458/33	H3027.D	05/29/2015	06:10

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Sample No.: ICIS 280-279265/19 Date Analyzed: 05/28/2015 04:25
 Instrument ID: VMS_H GC Column: DB-624 (75.53) ID: 0.53 (mm)
 Lab File ID (Standard): H2960.D Heated Purge: (Y/N) N
 Calibration ID: 22417

	TBA		FB		CBZ		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
INITIAL CALIBRATION MID-POINT	211144	3.97	1108417	6.76	256513	11.09	
UPPER LIMIT	422288	4.47	2216834	7.26	513026	11.59	
LOWER LIMIT	105572	3.47	554209	6.26	128257	10.59	
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-279265/23		204860	3.97	1164628	6.76	280885	11.11
CCV 280-279458/2		246709	3.99	1179657	6.77	262602	11.11
CCV 280-279458/3		231604	3.98	1204670	6.76	279293	11.11
LCS 280-279458/4		208047	3.99	1178561	6.76	258327	11.11
MB 280-279458/6		212852	3.99	1139866	6.76	259345	11.11
280-69589-1	54403-TB18-0515	218981	3.98	1176571	6.76	275532	11.10
280-69589-2	54400-MW54-0515	205890	3.98	1149582	6.76	268092	11.10
280-69589-3	54401-MW54-0515	227158	3.97	1193635	6.76	276920	11.09
CCVC 280-279458/33		198740	3.97	1165022	6.76	253431	11.09

TBA = TBA-d9 (IS)
 FB = Fluorobenzene
 CBZ = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Sample No.: ICIS 280-279265/19 Date Analyzed: 05/28/2015 04:25
 Instrument ID: VMS_H GC Column: DB-624 (75.53) ID: 0.53 (mm)
 Lab File ID (Standard): H2960.D Heated Purge: (Y/N) N
 Calibration ID: 22417

	DCB					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	390191	14.11				
UPPER LIMIT	780382	14.61				
LOWER LIMIT	195096	13.61				
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 280-279265/23		430424	14.12			
CCV 280-279458/2		442655	14.12			
CCV 280-279458/3		433114	14.13			
LCS 280-279458/4		436380	14.12			
MB 280-279458/6		410461	14.13			
280-69589-1	54403-TB18-0515	432086	14.11			
280-69589-2	54400-MW54-0515	410862	14.11			
280-69589-3	54401-MW54-0515	424827	14.11			
CCVC 280-279458/33		425494	14.10			

DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Client Sample ID: 54403-TB18-0515 Lab Sample ID: 280-69589-1
 Matrix: Water Lab File ID: H3015.D
 Analysis Method: 8260B Date Collected: 05/20/2015 00:00
 Sample wt/vol: 20 (mL) Date Analyzed: 05/29/2015 01:41
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279458 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	0.40	U	1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.20
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	0.80	U	1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	0.80	U	1.0	0.80	0.18
96-18-4	1,2,3-Trichloropropane	0.80	U	3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	0.40	U	1.0	0.40	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.81
106-93-4	1,2-Dibromoethane	0.40	U	1.0	0.40	0.18
95-50-1	1,2-Dichlorobenzene	0.40	U	1.0	0.40	0.13
107-06-2	1,2-Dichloroethane	0.40	U	1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	0.40	U	1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	0.40	U	1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	0.80	U	1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	4.0	U	6.0	4.0	1.8
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	4.0	U	5.0	4.0	1.4
106-43-4	4-Chlorotoluene	0.80	U	1.0	0.80	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	1.0
67-64-1	Acetone	6.4	U	10	6.4	1.9
71-43-2	Benzene	0.40	U	1.0	0.40	0.16
108-86-1	Bromobenzene	0.40	U	1.0	0.40	0.17
74-97-5	Bromochloromethane	0.20	U	1.0	0.20	0.10
75-27-4	Bromodichloromethane	0.40	U	1.0	0.40	0.17
75-25-2	Bromoform	0.40	U	1.0	0.40	0.19
74-83-9	Bromomethane	0.80	U	2.0	0.80	0.21
75-15-0	Carbon disulfide	1.6	U	2.0	1.6	0.45
56-23-5	Carbon tetrachloride	0.40	U	2.0	0.40	0.19
108-90-7	Chlorobenzene	0.40	U	1.0	0.40	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Client Sample ID: 54403-TB18-0515 Lab Sample ID: 280-69589-1
 Matrix: Water Lab File ID: H3015.D
 Analysis Method: 8260B Date Collected: 05/20/2015 00:00
 Sample wt/vol: 20 (mL) Date Analyzed: 05/29/2015 01:41
 Soil Aliquot Vol.: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279458 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-48-1	Chlorodibromomethane	0.40	U	1.0	0.40	0.17
75-00-3	Chloroethane	1.6	U	2.0	1.6	0.41
67-66-3	Chloroform	0.40	U	1.0	0.40	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.16
87-68-3	Hexachlorobutadiene	0.80	U	1.0	0.80	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
1634-04-4	Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25
75-09-2	Methylene Chloride	0.80	U	5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.34
91-20-3	Naphthalene	0.80	U	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.80	U	1.0	0.80	0.32
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
99-87-6	p-Isopropyltoluene	0.40	U	1.0	0.40	0.17
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
100-42-5	Styrene	0.40	U	1.0	0.40	0.17
75-65-0	tert-Butyl alcohol	32	U	50	32	11
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	0.40	U	1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.20	U	1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Client Sample ID: 54403-TB18-0515 Lab Sample ID: 280-69589-1
 Matrix: Water Lab File ID: H3015.D
 Analysis Method: 8260B Date Collected: 05/20/2015 00:00
 Sample wt/vol: 20 (mL) Date Analyzed: 05/29/2015 01:41
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279458 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		81-118
460-00-4	4-Bromofluorobenzene (Surr)	99		85-114
1868-53-7	Dibromofluoromethane (Surr)	98		80-119
2037-26-5	Toluene-d8 (Surr)	98		89-112

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H3015.D
 Lims ID: 280-69589-A-1 Lab Sample ID: 280-69589-1
 Client ID: 54403-TB18-0515
 Sample Type: Client
 Inject. Date: 29-May-2015 01:41:30 ALS Bottle#: 18 Worklist Smp#: 21
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: 280-69589-A-1 pH<2
 Operator ID: bergerb Instrument ID: VMS_H
 Method: \\Denchrom\ChromData\VMS_H\20150528-35487.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 29-May-2015 17:47:21 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK049

First Level Reviewer: bergerb Date: 29-May-2015 17:47:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.976	3.970	0.006	99	218981	250.0	
* 2 Fluorobenzene	96	6.761	6.755	0.006	97	1176571	12.5	
* 3 1,4-Dioxane-d8	96		8.670				ND	
* 4 Chlorobenzene-d5	119	11.096	11.090	0.006	92	275532	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.108	14.102	0.006	98	432086	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.926	5.920	0.006	93	495185	8.33	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	6.344	6.337	0.007	83	269151	8.18	
\$ 10 Toluene-d8 (Surr)	98	8.868	8.862	0.006	95	1122470	8.35	
\$ 11 4-Bromofluorobenzene (Surr	95	12.750	12.744	0.006	80	625431	8.46	
28 Dichlorodifluoromethane	85		2.159				ND	
30 Chloromethane	50		2.246				ND	
32 Vinyl chloride	62		2.385				ND	
35 Bromomethane	94		2.681				ND	
36 Chloroethane	64		2.751				ND	
38 Trichlorofluoromethane	101		2.977				ND	
45 1,1-Dichloroethene	96		3.465				ND	
47 Acetone	43		3.500				ND	
50 Carbon disulfide	76		3.709				ND	
54 Methylene Chloride	84		3.935				ND	
55 2-Methyl-2-propanol	59		4.057				ND	
58 trans-1,2-Dichloroethene	96		4.231				ND	
56 Methyl tert-butyl ether	73		4.231				ND	
60 1,1-Dichloroethane	63		4.684				ND	
67 2-Butanone (MEK)	43		5.345				ND	
66 2,2-Dichloropropane	77		5.363				ND	
65 cis-1,2-Dichloroethene	96		5.363				ND	
73 Chlorobromomethane	128		5.641				ND	
75 Chloroform	83		5.711				ND	
76 1,1,1-Trichloroethane	97		5.972				ND	
78 1,1-Dichloropropene	75		6.146				ND	
79 Carbon tetrachloride	117		6.181				ND	
81 Benzene	78		6.407				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
82 1,2-Dichloroethane	62		6.425				ND	
86 Trichloroethene	95		7.225				ND	
90 1,2-Dichloropropane	63		7.521				ND	
92 Dibromomethane	93		7.678				ND	
94 Dichlorobromomethane	83		7.887				ND	
97 cis-1,3-Dichloropropene	75		8.479				ND	
98 4-Methyl-2-pentanone (MIBK)	43		8.705				ND	
99 Toluene	91		8.966				ND	
100 trans-1,3-Dichloropropene	75		9.280				ND	
102 1,1,2-Trichloroethane	97		9.541				ND	
103 Tetrachloroethene	164		9.750				ND	
104 1,3-Dichloropropane	76		9.785				ND	
105 2-Hexanone	43		9.906				ND	
108 Chlorodibromomethane	129		10.133				ND	
109 Ethylene Dibromide	107		10.324				ND	
111 Chlorobenzene	112		11.143				ND	
112 1,1,1,2-Tetrachloroethane	131		11.282				ND	
113 Ethylbenzene	106		11.317				ND	
114 m-Xylene & p-Xylene	106		11.491				ND	
115 o-Xylene	106		12.065				ND	
116 Styrene	104		12.083				ND	
117 Bromoform	173		12.344				ND	
118 Isopropylbenzene	105		12.553				ND	
122 Bromobenzene	156		12.936				ND	
121 1,1,2,2-Tetrachloroethane	83		12.936				ND	
123 1,2,3-Trichloropropane	110		12.988				ND	
125 N-Propylbenzene	120		13.075				ND	
126 2-Chlorotoluene	126		13.179				ND	
127 1,3,5-Trimethylbenzene	105		13.284				ND	
128 4-Chlorotoluene	126		13.301				ND	
129 tert-Butylbenzene	119		13.667				ND	
130 1,2,4-Trimethylbenzene	105		13.719				ND	
131 sec-Butylbenzene	134		13.911				ND	
132 1,3-Dichlorobenzene	146		14.032				ND	
133 4-Isopropyltoluene	119		14.067				ND	
134 1,4-Dichlorobenzene	146		14.137				ND	
137 n-Butylbenzene	91		14.503				ND	
138 1,2-Dichlorobenzene	146		14.520				ND	
139 1,2-Dibromo-3-Chloropropan	157		15.303				ND	
144 1,2,3-Trichlorobenzene	180		16.069				ND	
142 Hexachlorobutadiene	225		16.226				ND	
143 Naphthalene	128		16.296				ND	
141 1,2,4-Trichlorobenzene	180		16.522				ND	

Reagents:

MV-568718-D_00002

Amount Added: 1.00

Units: uL

Run Reagent

MV-ARCH SS A_00042

Amount Added: 0.68

Units: uL

Run Reagent

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H3015.D

Injection Date: 29-May-2015 01:41:30

Instrument ID: VMS_H

Operator ID: bergerb

Lims ID: 280-69589-A-1

Lab Sample ID: 280-69589-1

Worklist Smp#: 21

Client ID: 54403-TB18-0515

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

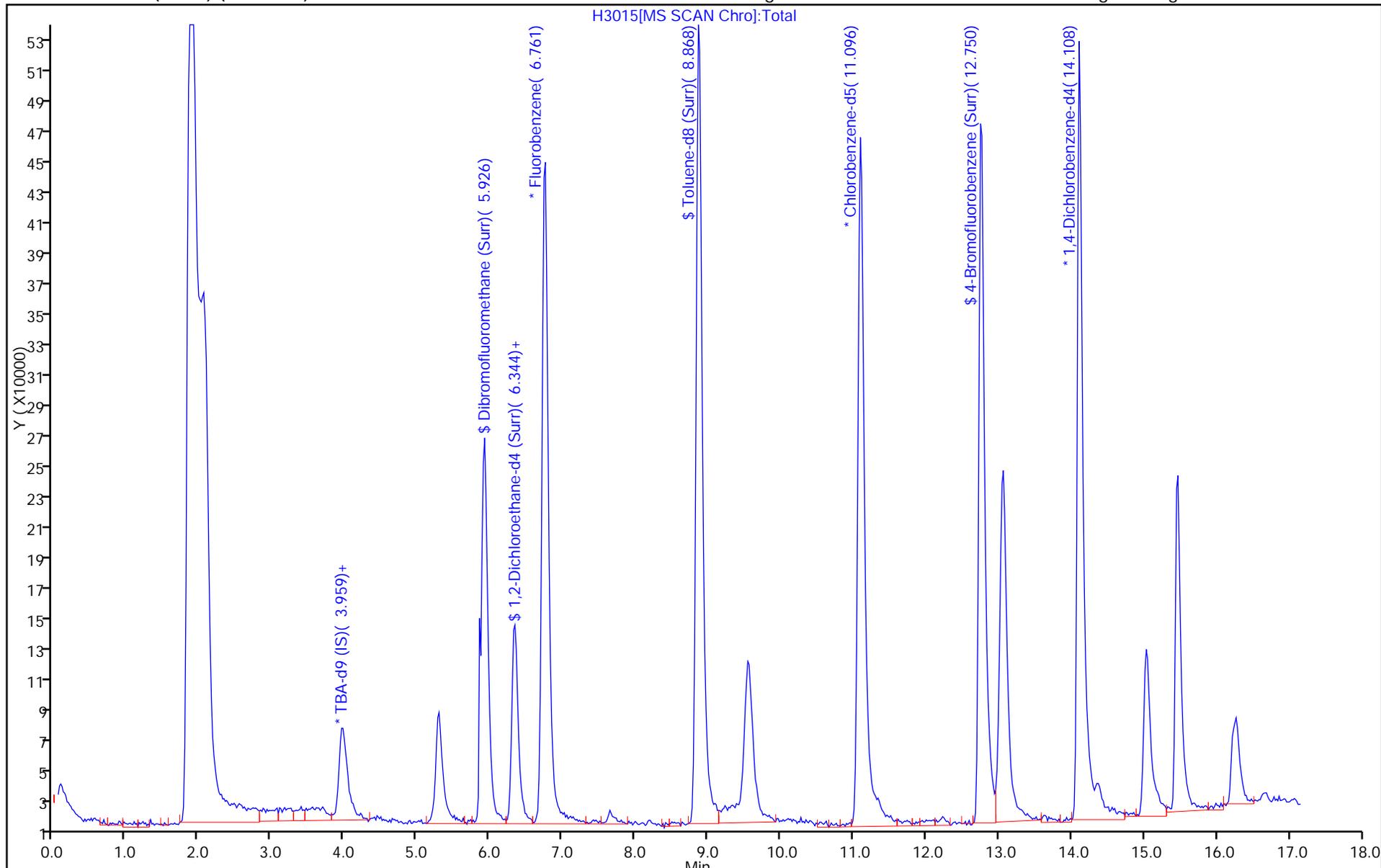
ALS Bottle#: 18

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Client Sample ID: 54400-MW54-0515 Lab Sample ID: 280-69589-2
 Matrix: Water Lab File ID: H3016.D
 Analysis Method: 8260B Date Collected: 05/20/2015 16:20
 Sample wt/vol: 20 (mL) Date Analyzed: 05/29/2015 02:04
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279458 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	0.40	U	1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.20
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	4.6		1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	0.80	U	1.0	0.80	0.18
96-18-4	1,2,3-Trichloropropane	0.80	U	3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	0.40	U	1.0	0.40	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.81
106-93-4	1,2-Dibromoethane	0.40	U	1.0	0.40	0.18
95-50-1	1,2-Dichlorobenzene	0.40	U	1.0	0.40	0.13
107-06-2	1,2-Dichloroethane	0.40	U	1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	0.40	U	1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	0.40	U	1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	0.80	U	1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	4.0	U	6.0	4.0	1.8
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	4.0	U	5.0	4.0	1.4
106-43-4	4-Chlorotoluene	0.80	U	1.0	0.80	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	1.0
67-64-1	Acetone	6.4	U	10	6.4	1.9
71-43-2	Benzene	0.40	U	1.0	0.40	0.16
108-86-1	Bromobenzene	0.40	U	1.0	0.40	0.17
74-97-5	Bromochloromethane	0.20	U	1.0	0.20	0.10
75-27-4	Bromodichloromethane	0.56	J	1.0	0.40	0.17
75-25-2	Bromoform	0.24	J	1.0	0.40	0.19
74-83-9	Bromomethane	0.80	U	2.0	0.80	0.21
75-15-0	Carbon disulfide	1.6	U	2.0	1.6	0.45
56-23-5	Carbon tetrachloride	1.8	J	2.0	0.40	0.19
108-90-7	Chlorobenzene	0.40	U	1.0	0.40	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Client Sample ID: 54400-MW54-0515 Lab Sample ID: 280-69589-2
 Matrix: Water Lab File ID: H3016.D
 Analysis Method: 8260B Date Collected: 05/20/2015 16:20
 Sample wt/vol: 20 (mL) Date Analyzed: 05/29/2015 02:04
 Soil Aliquot Vol.: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279458 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-48-1	Chlorodibromomethane	0.60	J	1.0	0.40	0.17
75-00-3	Chloroethane	1.6	U	2.0	1.6	0.41
67-66-3	Chloroform	0.59	J	1.0	0.40	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.16
87-68-3	Hexachlorobutadiene	0.80	U	1.0	0.80	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
1634-04-4	Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25
75-09-2	Methylene Chloride	0.80	U	5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.34
91-20-3	Naphthalene	0.80	U	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.80	U	1.0	0.80	0.32
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
99-87-6	p-Isopropyltoluene	0.40	U	1.0	0.40	0.17
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
100-42-5	Styrene	0.40	U	1.0	0.40	0.17
75-65-0	tert-Butyl alcohol	32	U	50	32	11
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	2.3		1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.20	U	1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Client Sample ID: 54400-MW54-0515 Lab Sample ID: 280-69589-2
 Matrix: Water Lab File ID: H3016.D
 Analysis Method: 8260B Date Collected: 05/20/2015 16:20
 Sample wt/vol: 20 (mL) Date Analyzed: 05/29/2015 02:04
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279458 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		81-118
460-00-4	4-Bromofluorobenzene (Surr)	100		85-114
1868-53-7	Dibromofluoromethane (Surr)	100		80-119
2037-26-5	Toluene-d8 (Surr)	99		89-112

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H3016.D
 Lims ID: 280-69589-G-2 Lab Sample ID: 280-69589-2
 Client ID: 54400-MW54-0515
 Sample Type: Client
 Inject. Date: 29-May-2015 02:04:30 ALS Bottle#: 19 Worklist Smp#: 22
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: 280-69589-G-2 pH<2
 Operator ID: bergerb Instrument ID: VMS_H
 Method: \\Denchrom\ChromData\VMS_H\20150528-35487.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 29-May-2015 17:27:03 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK049

First Level Reviewer: bergerb Date: 29-May-2015 17:26:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.975	3.970	0.005	99	205890	250.0	
* 2 Fluorobenzene	96	6.761	6.755	0.006	97	1149582	12.5	
* 3 1,4-Dioxane-d8	96		8.670				ND	
* 4 Chlorobenzene-d5	119	11.096	11.090	0.006	92	268092	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.108	14.102	0.006	98	410862	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.925	5.920	0.005	92	491081	8.46	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	6.343	6.337	0.006	83	261296	8.12	
\$ 10 Toluene-d8 (Surr)	98	8.867	8.862	0.005	95	1097024	8.39	
\$ 11 4-Bromofluorobenzene (Surr	95	12.750	12.744	0.006	80	597624	8.50	
28 Dichlorodifluoromethane	85		2.159				ND	
30 Chloromethane	50		2.246				ND	
32 Vinyl chloride	62		2.385				ND	
35 Bromomethane	94		2.681				ND	
36 Chloroethane	64		2.751				ND	
38 Trichlorofluoromethane	101		2.977				ND	
45 1,1-Dichloroethene	96	3.470	3.465	0.005	94	158029	4.60	
47 Acetone	43		3.500				ND	
50 Carbon disulfide	76		3.709				ND	
54 Methylene Chloride	84	3.941	3.935	0.006	96	18477	0.1634	
55 2-Methyl-2-propanol	59		4.057				ND	
58 trans-1,2-Dichloroethene	96		4.231				ND	
56 Methyl tert-butyl ether	73		4.231				ND	
60 1,1-Dichloroethane	63		4.684				ND	
67 2-Butanone (MEK)	43		5.345				ND	
66 2,2-Dichloropropane	77		5.363				ND	
65 cis-1,2-Dichloroethene	96		5.363				ND	
73 Chlorobromomethane	128		5.641				ND	
75 Chloroform	83	5.716	5.711	0.005	97	44852	0.5890	
76 1,1,1-Trichloroethane	97		5.972				ND	
78 1,1-Dichloropropene	75		6.146				ND	
79 Carbon tetrachloride	117	6.186	6.181	0.005	99	122522	1.81	
81 Benzene	78		6.407				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
82 1,2-Dichloroethane	62		6.425				ND	
86 Trichloroethene	95	7.231	7.225	0.006	97	112177	2.29	
90 1,2-Dichloropropane	63		7.521				ND	
92 Dibromomethane	93		7.678				ND	
94 Dichlorobromomethane	83	7.893	7.887	0.006	97	39113	0.5587	
97 cis-1,3-Dichloropropene	75		8.479				ND	
98 4-Methyl-2-pentanone (MIBK)	43		8.705				ND	
99 Toluene	91		8.966				ND	
100 trans-1,3-Dichloropropene	75		9.280				ND	
102 1,1,2-Trichloroethane	97		9.541				ND	
103 Tetrachloroethene	164		9.750				ND	
104 1,3-Dichloropropane	76		9.785				ND	
105 2-Hexanone	43		9.906				ND	
108 Chlorodibromomethane	129	10.138	10.133	0.005	90	28913	0.6042	
109 Ethylene Dibromide	107		10.324				ND	
111 Chlorobenzene	112		11.143				ND	
112 1,1,1,2-Tetrachloroethane	131		11.282				ND	
113 Ethylbenzene	106		11.317				ND	
114 m-Xylene & p-Xylene	106		11.491				ND	
115 o-Xylene	106		12.065				ND	
116 Styrene	104		12.083				ND	
117 Bromoform	173	12.349	12.344	0.005	89	6238	0.2416	
118 Isopropylbenzene	105		12.553				ND	
122 Bromobenzene	156		12.936				ND	
121 1,1,2,2-Tetrachloroethane	83		12.936				ND	
123 1,2,3-Trichloropropane	110		12.988				ND	
125 N-Propylbenzene	120		13.075				ND	
126 2-Chlorotoluene	126		13.179				ND	
127 1,3,5-Trimethylbenzene	105		13.284				ND	
128 4-Chlorotoluene	126		13.301				ND	
129 tert-Butylbenzene	119		13.667				ND	
130 1,2,4-Trimethylbenzene	105		13.719				ND	
131 sec-Butylbenzene	134		13.911				ND	
132 1,3-Dichlorobenzene	146		14.032				ND	
133 4-Isopropyltoluene	119		14.067				ND	
134 1,4-Dichlorobenzene	146		14.137				ND	
137 n-Butylbenzene	91		14.503				ND	
138 1,2-Dichlorobenzene	146		14.520				ND	
139 1,2-Dibromo-3-Chloropropan	157		15.303				ND	
144 1,2,3-Trichlorobenzene	180		16.069				ND	
142 Hexachlorobutadiene	225		16.226				ND	
143 Naphthalene	128		16.296				ND	
141 1,2,4-Trichlorobenzene	180		16.522				ND	

Reagents:

MV-568718-D_00002

Amount Added: 1.00

Units: uL

Run Reagent

MV-ARCH SS A_00042

Amount Added: 0.68

Units: uL

Run Reagent

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H3016.D

Injection Date: 29-May-2015 02:04:30

Instrument ID: VMS_H

Operator ID: bergerb

Lims ID: 280-69589-G-2

Lab Sample ID: 280-69589-2

Worklist Smp#: 22

Client ID: 54400-MW54-0515

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

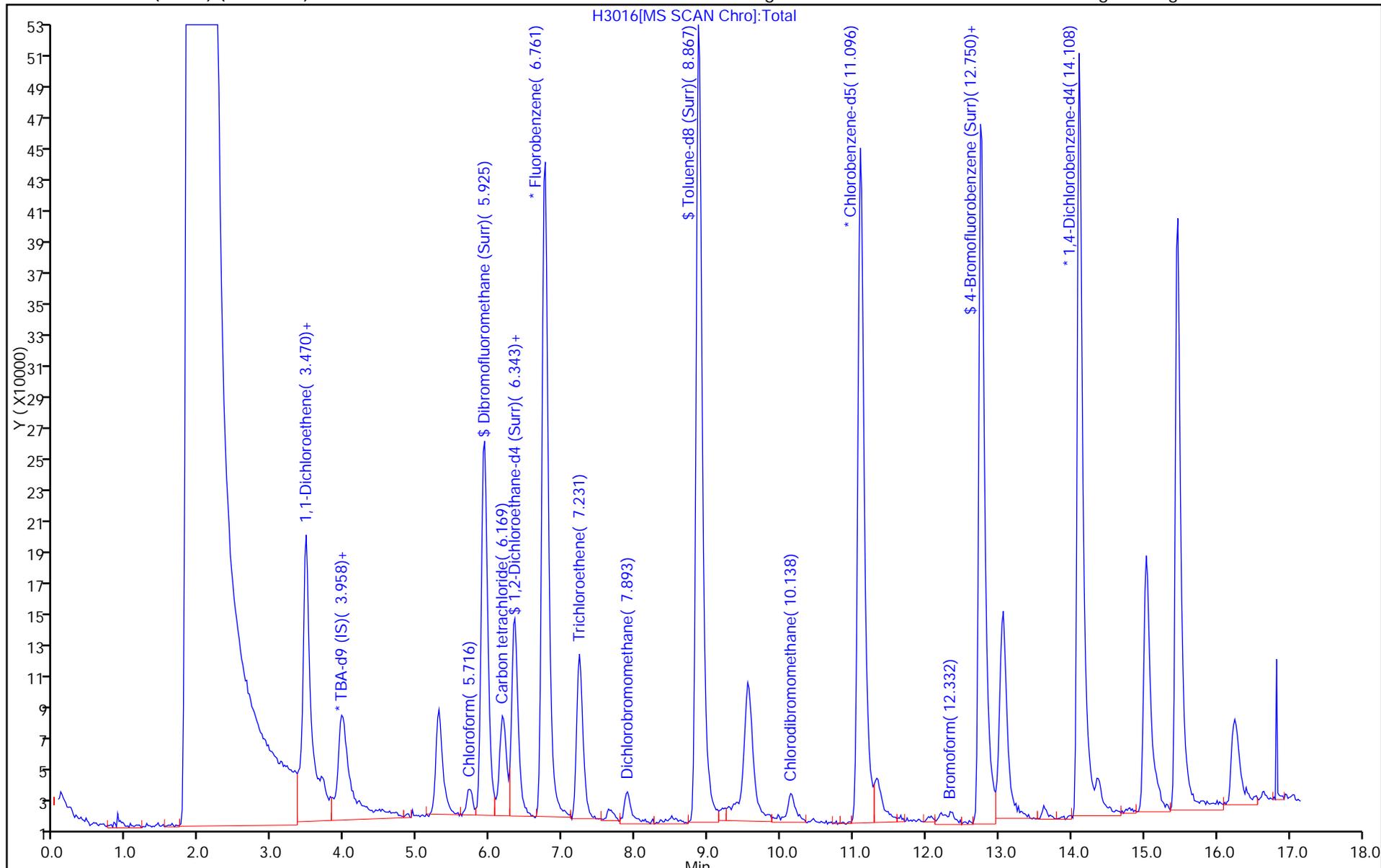
ALS Bottle#: 19

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H3016.D

Injection Date: 29-May-2015 02:04:30

Instrument ID: VMS_H

Lims ID: 280-69589-G-2

Lab Sample ID: 280-69589-2

Client ID: 54400-MW54-0515

Operator ID: bergerb

ALS Bottle#: 19

Worklist Smp#: 22

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

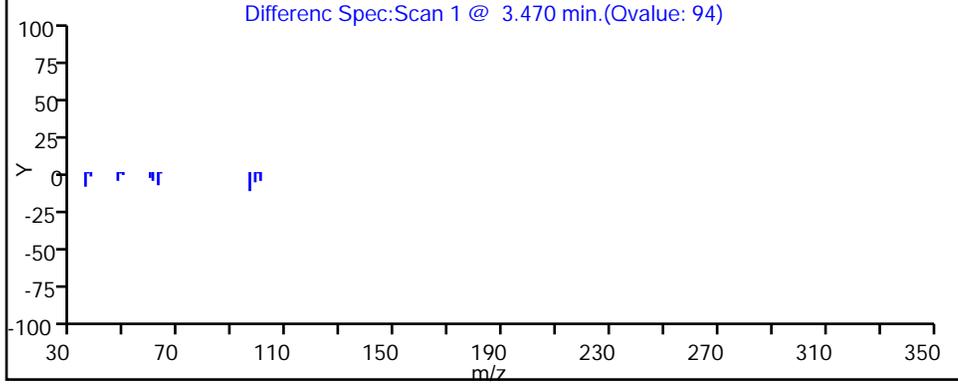
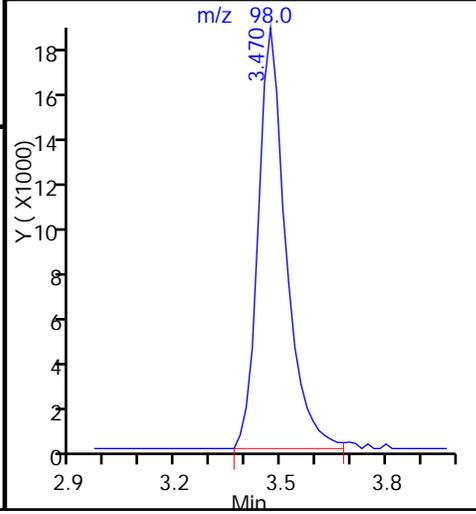
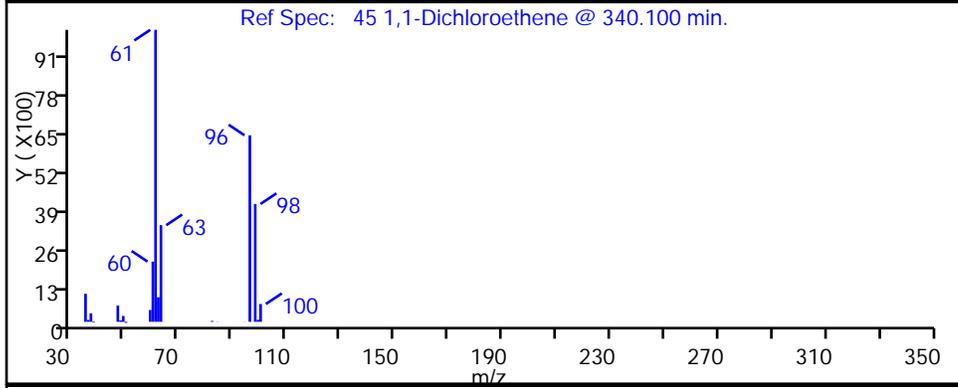
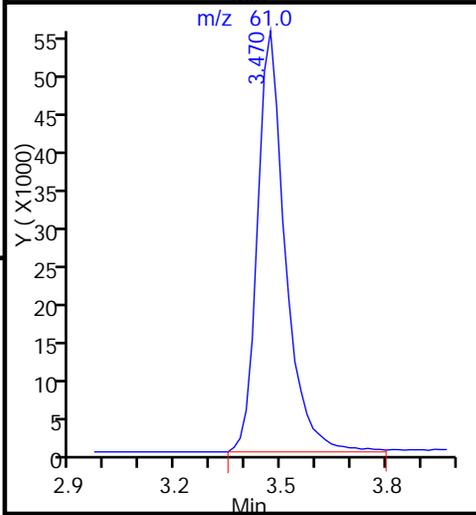
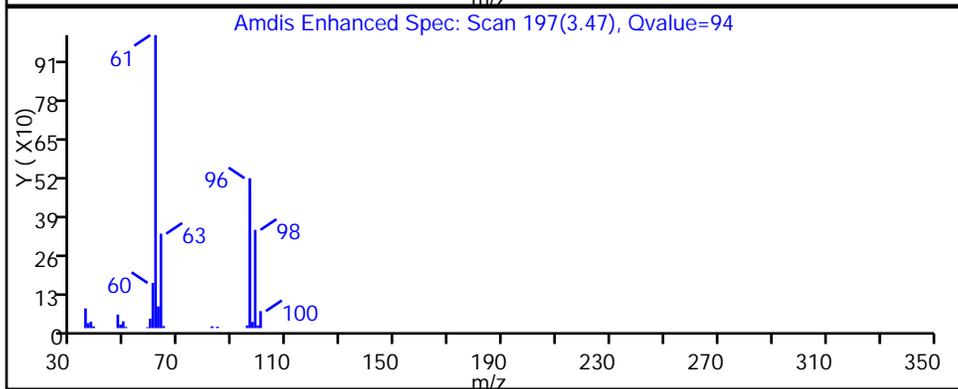
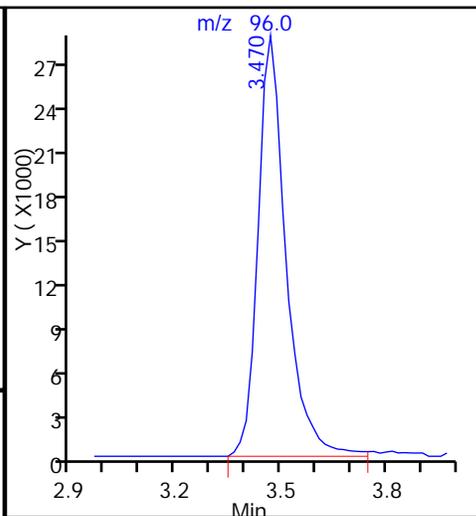
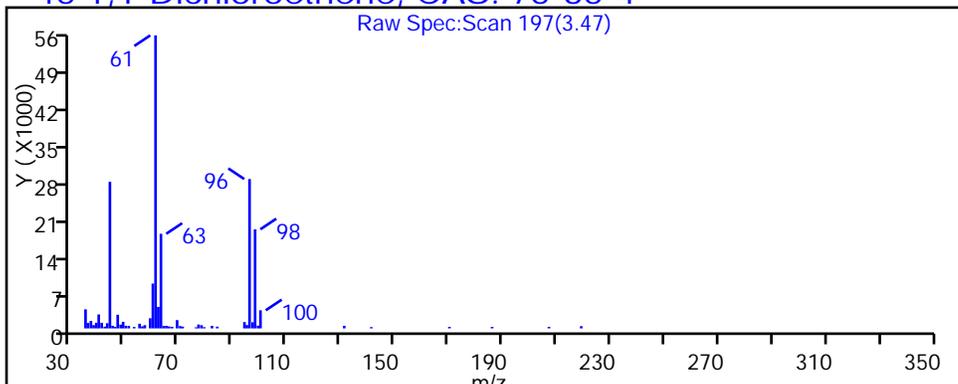
Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

45 1,1-Dichloroethene, CAS: 75-35-4



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H3016.D

Injection Date: 29-May-2015 02:04:30

Instrument ID: VMS_H

Lims ID: 280-69589-G-2

Lab Sample ID: 280-69589-2

Client ID: 54400-MW54-0515

Operator ID: bergerb

ALS Bottle#: 19

Worklist Smp#: 22

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

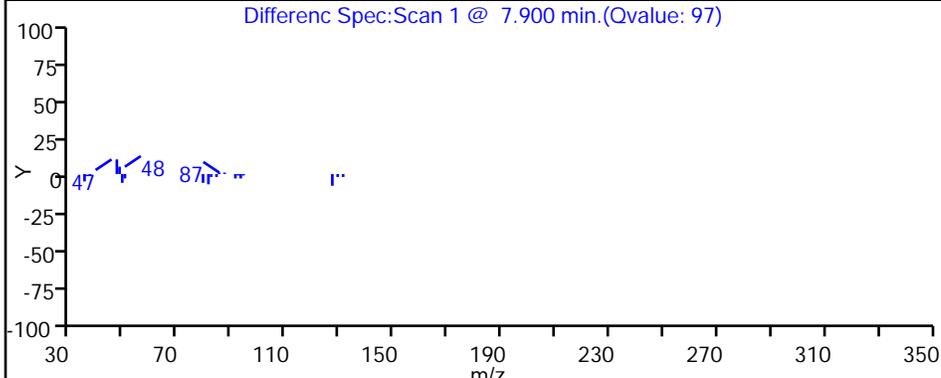
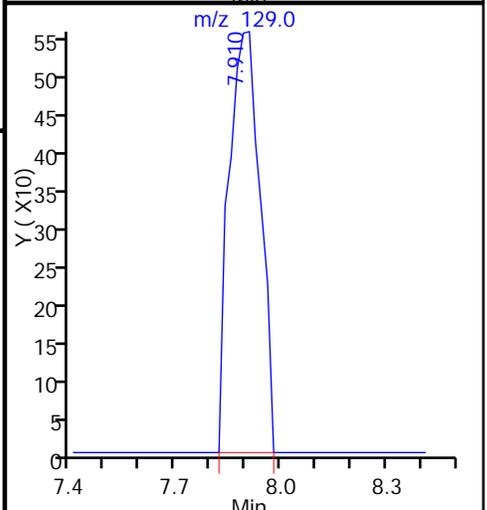
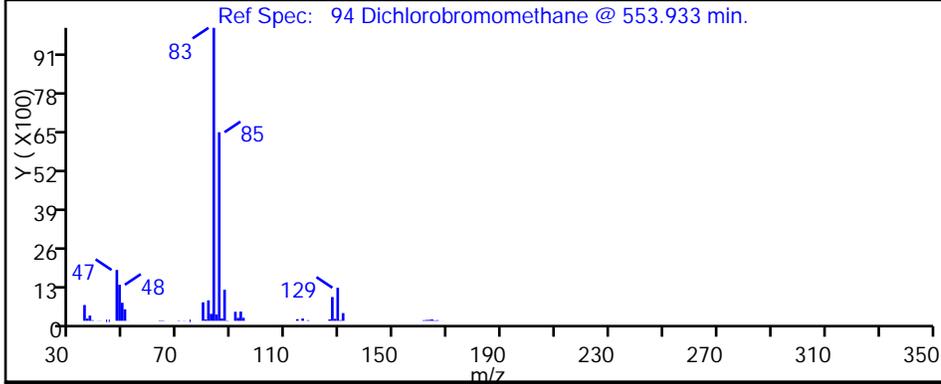
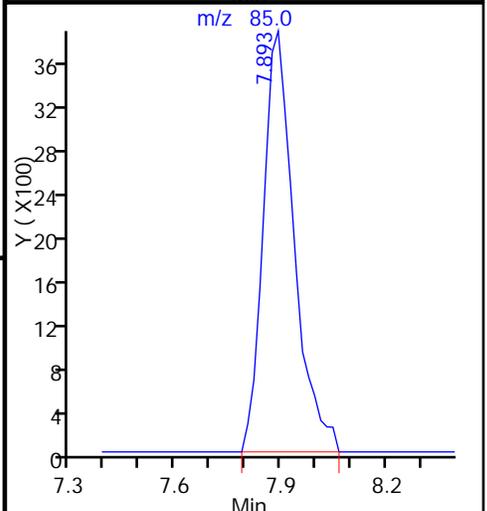
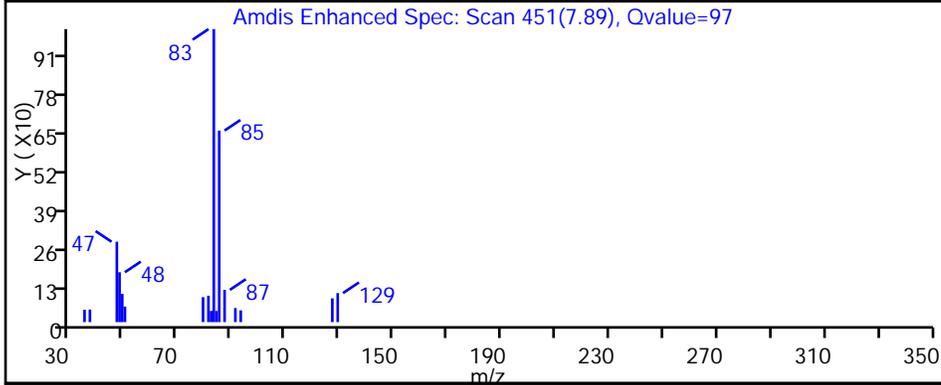
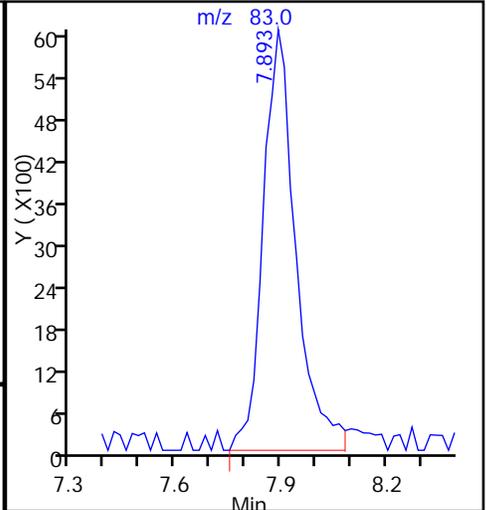
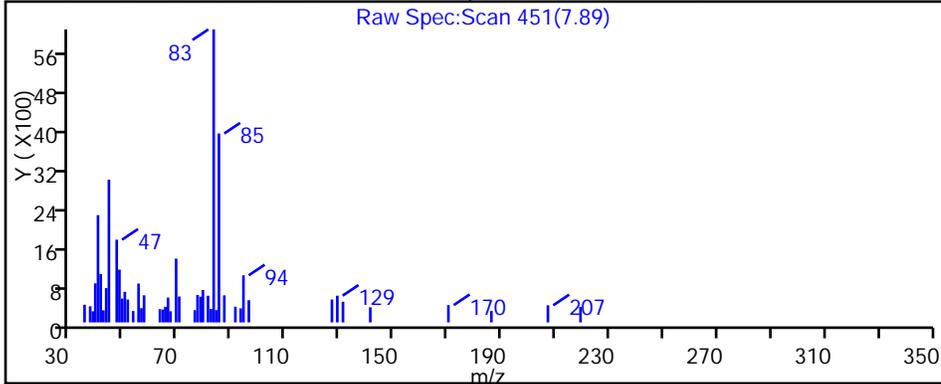
Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

94 Dichlorobromomethane, CAS: 75-27-4



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H3016.D

Injection Date: 29-May-2015 02:04:30

Instrument ID: VMS_H

Lims ID: 280-69589-G-2

Lab Sample ID: 280-69589-2

Client ID: 54400-MW54-0515

Operator ID: bergerb

ALS Bottle#: 19

Worklist Smp#: 22

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

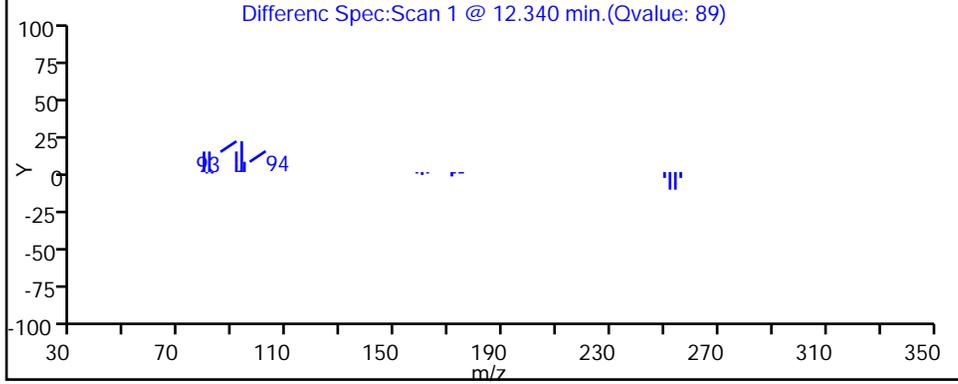
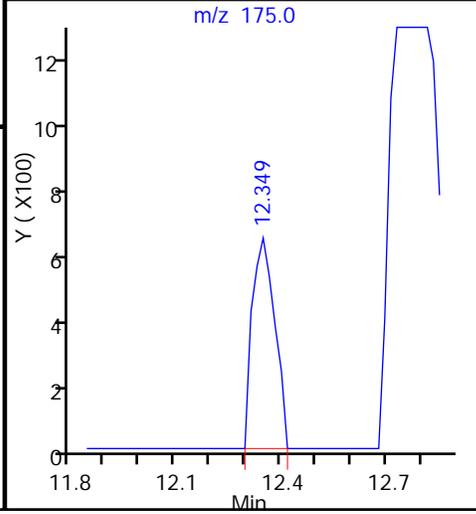
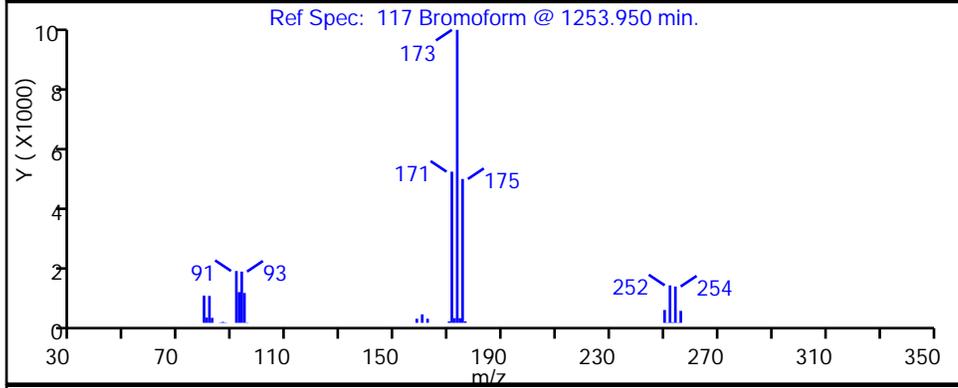
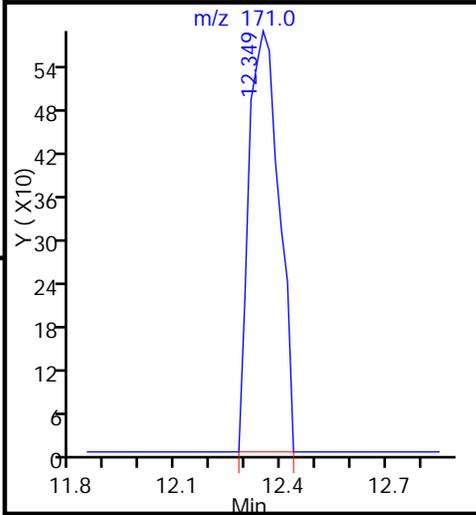
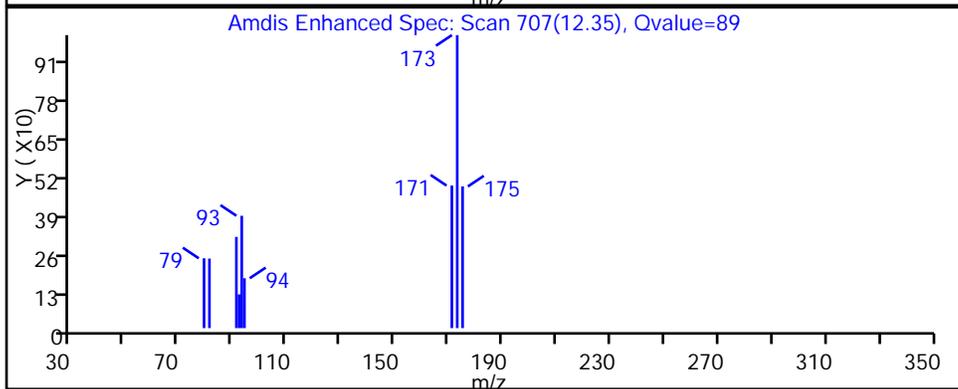
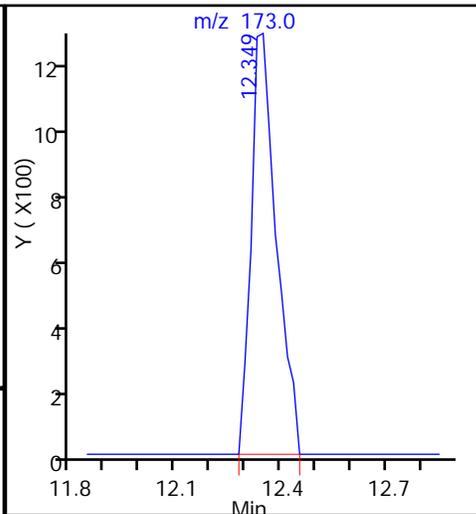
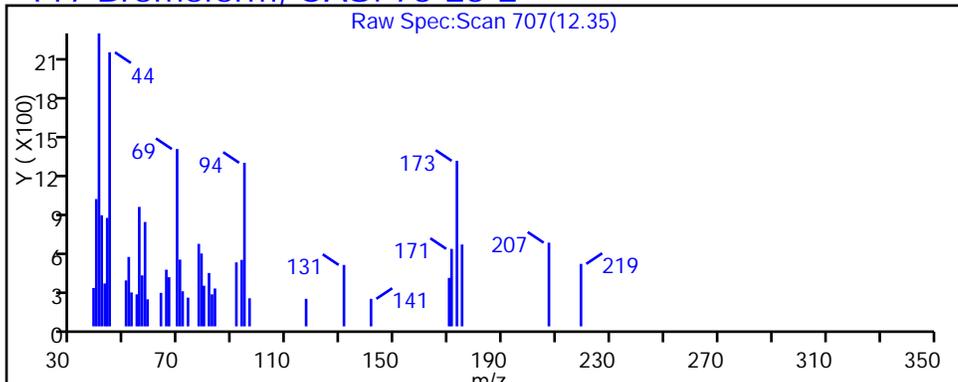
Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

117 Bromoform, CAS: 75-25-2



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H3016.D

Injection Date: 29-May-2015 02:04:30

Instrument ID: VMS_H

Lims ID: 280-69589-G-2

Lab Sample ID: 280-69589-2

Client ID: 54400-MW54-0515

Operator ID: bergerb

ALS Bottle#: 19

Worklist Smp#: 22

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

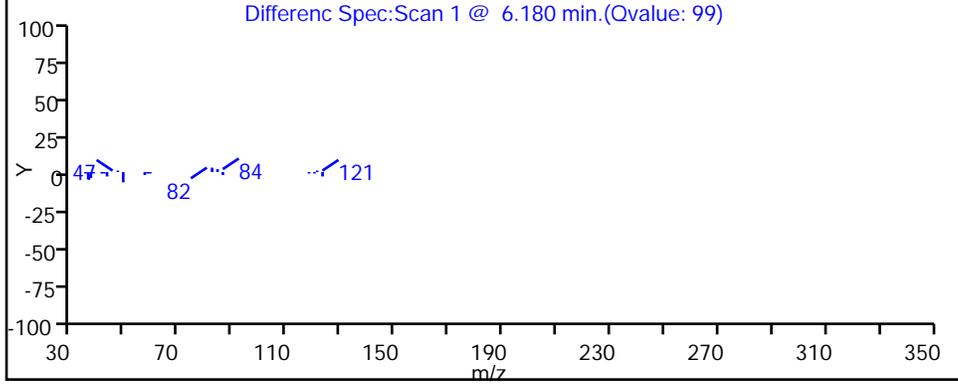
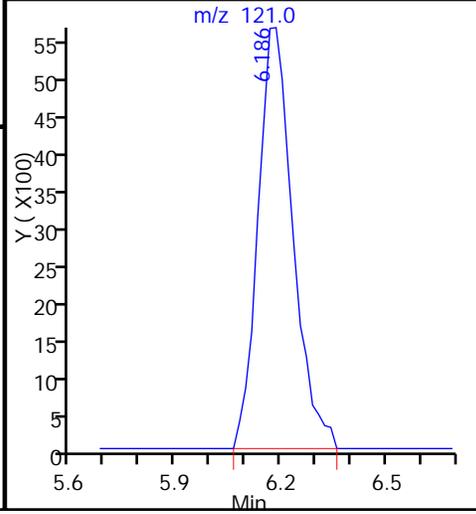
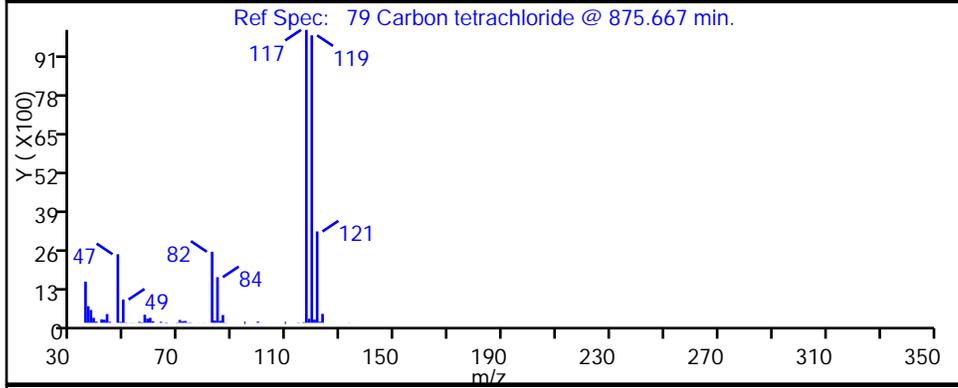
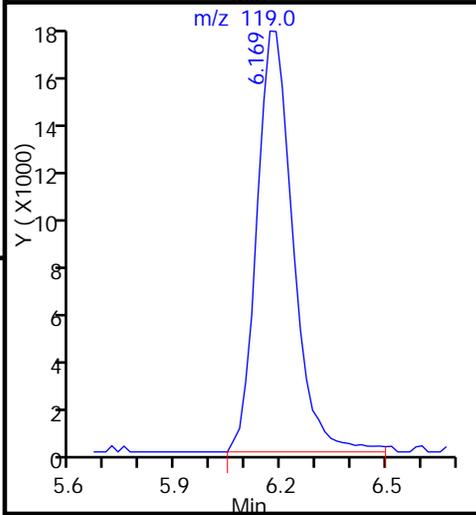
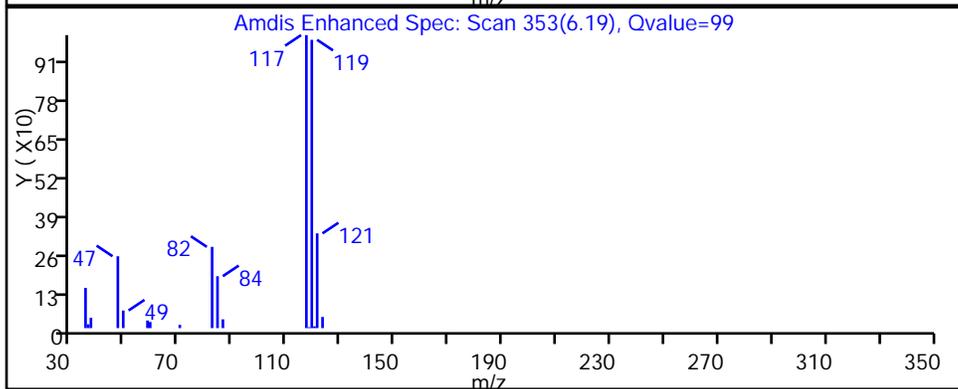
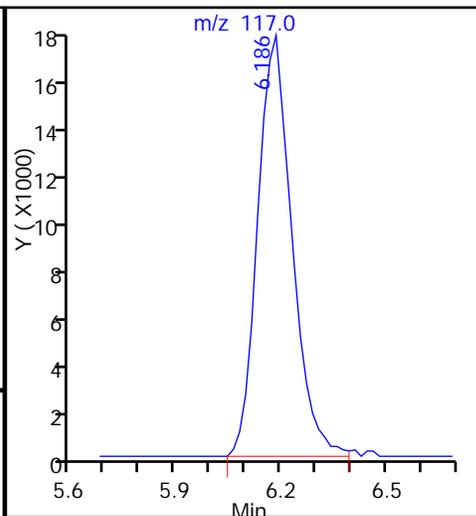
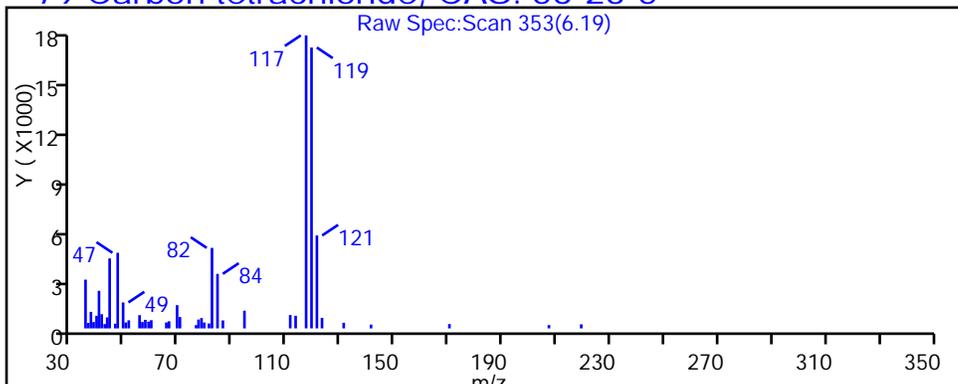
Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

79 Carbon tetrachloride, CAS: 56-23-5



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H3016.D

Injection Date: 29-May-2015 02:04:30

Instrument ID: VMS_H

Lims ID: 280-69589-G-2

Lab Sample ID: 280-69589-2

Client ID: 54400-MW54-0515

Operator ID: bergerb

ALS Bottle#: 19

Worklist Smp#: 22

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

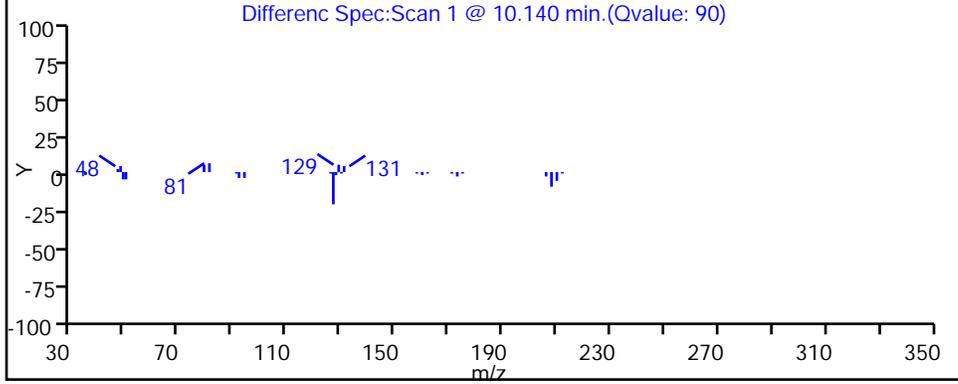
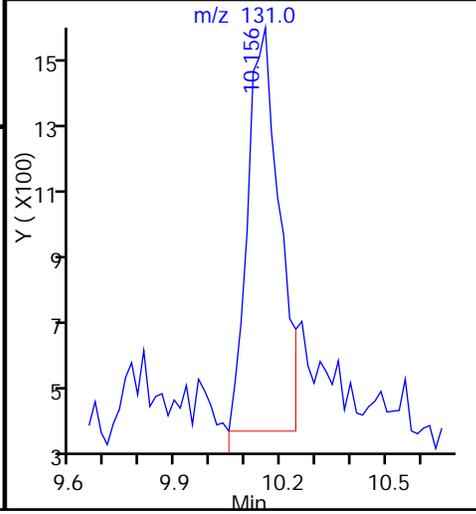
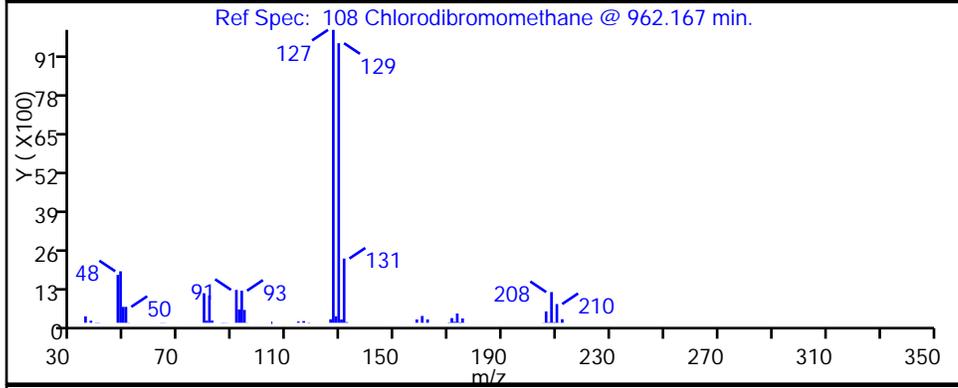
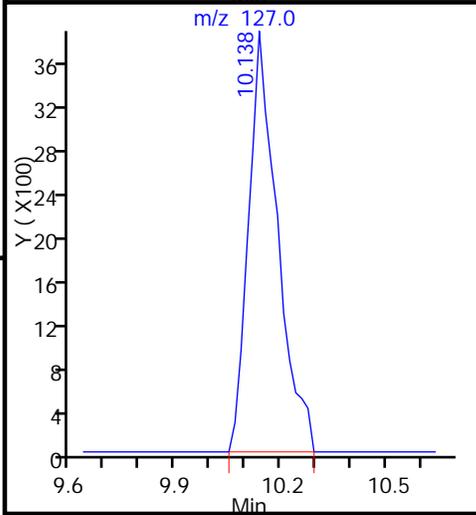
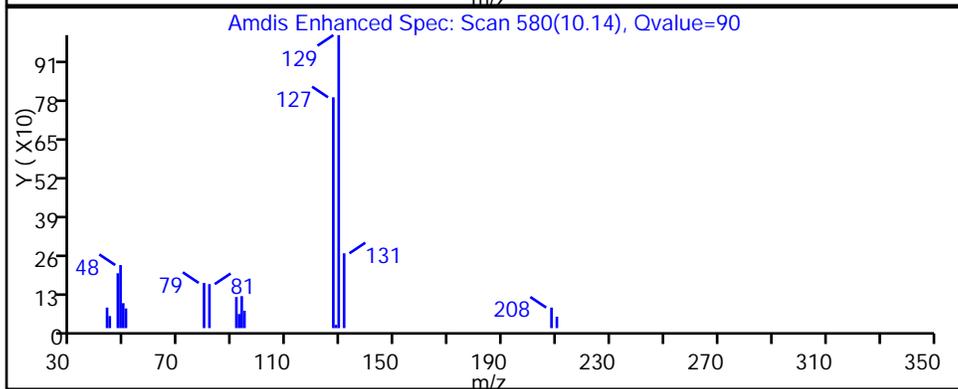
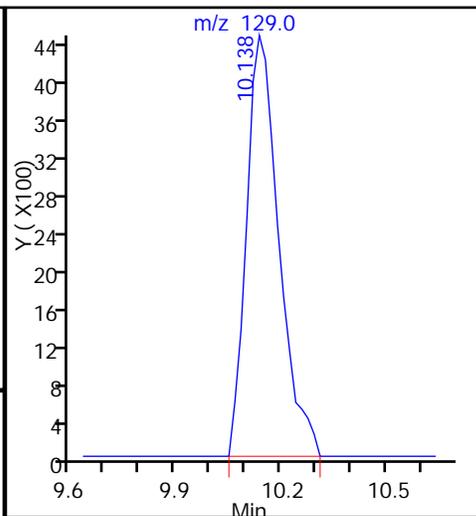
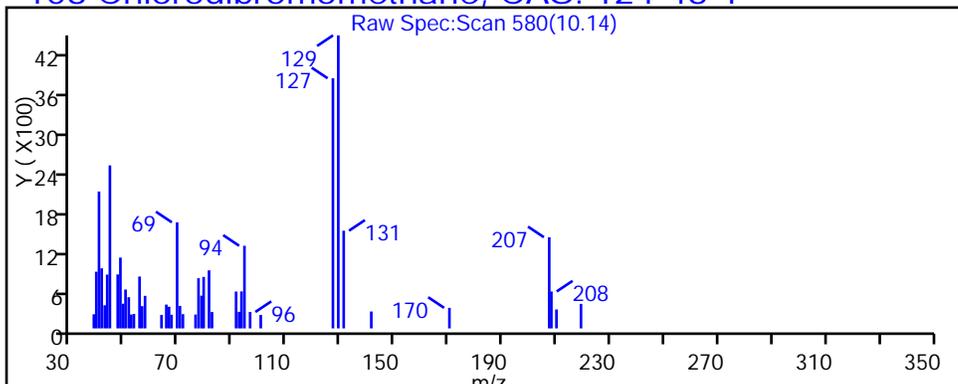
Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

108 Chlorodibromomethane, CAS: 124-48-1



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H3016.D

Injection Date: 29-May-2015 02:04:30

Instrument ID: VMS_H

Lims ID: 280-69589-G-2

Lab Sample ID: 280-69589-2

Client ID: 54400-MW54-0515

Operator ID: bergerb

ALS Bottle#: 19

Worklist Smp#: 22

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

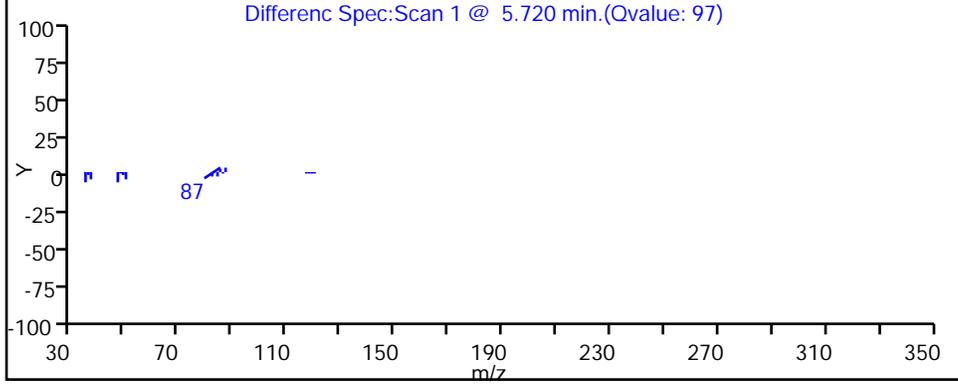
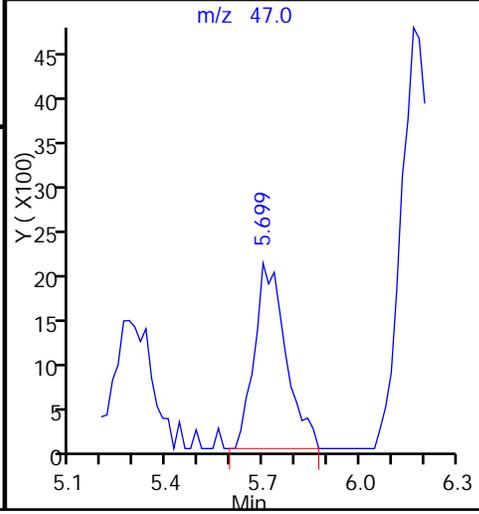
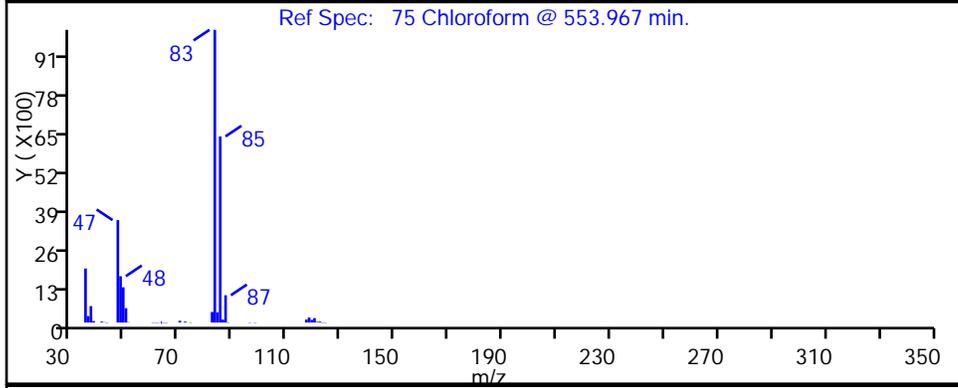
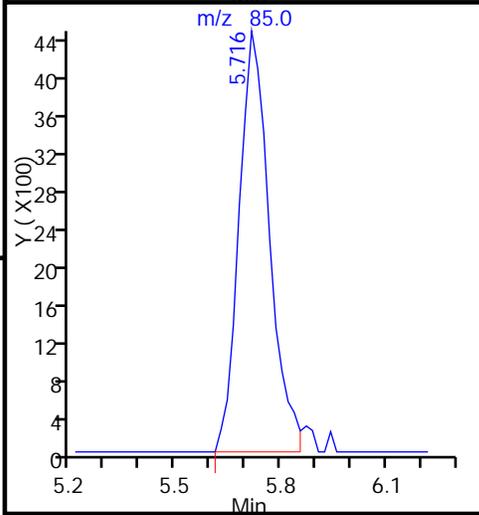
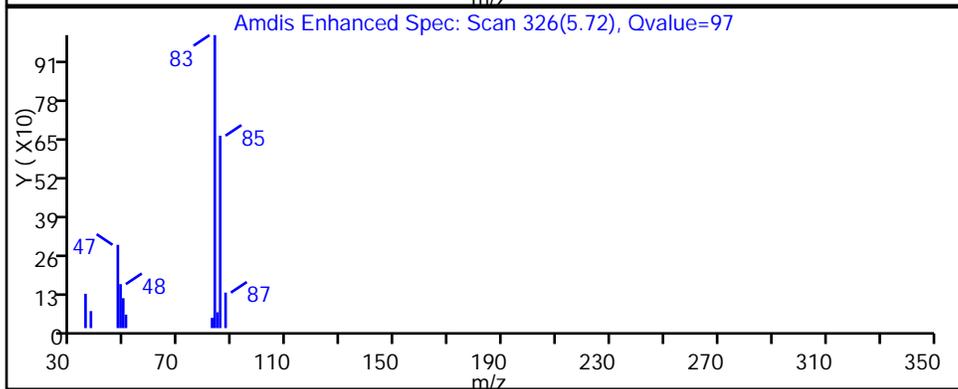
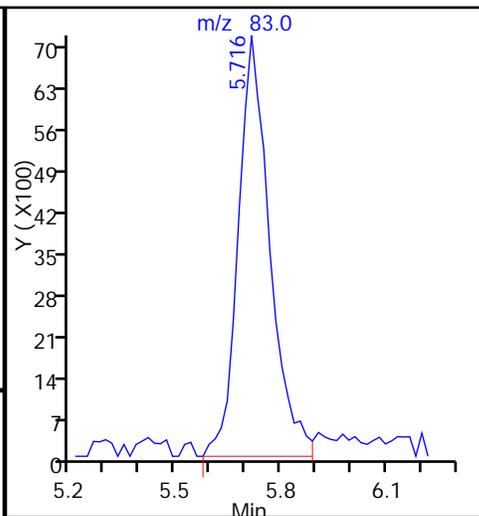
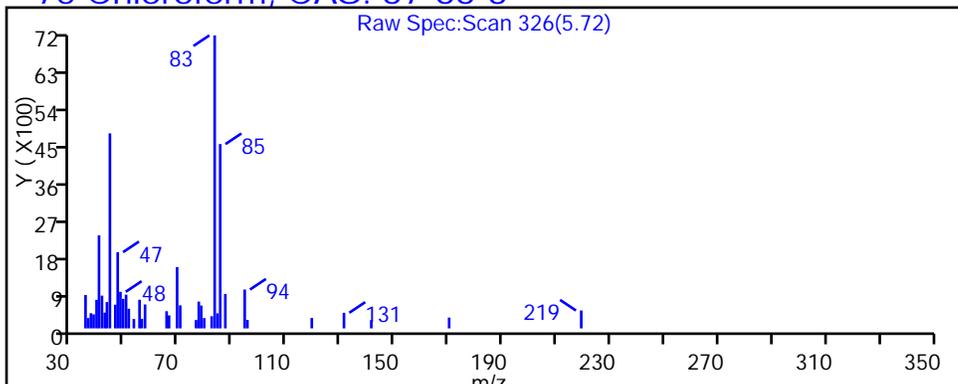
Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

75 Chloroform, CAS: 67-66-3



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H3016.D

Injection Date: 29-May-2015 02:04:30

Instrument ID: VMS_H

Lims ID: 280-69589-G-2

Lab Sample ID: 280-69589-2

Client ID: 54400-MW54-0515

Operator ID: bergerb

ALS Bottle#: 19

Worklist Smp#: 22

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

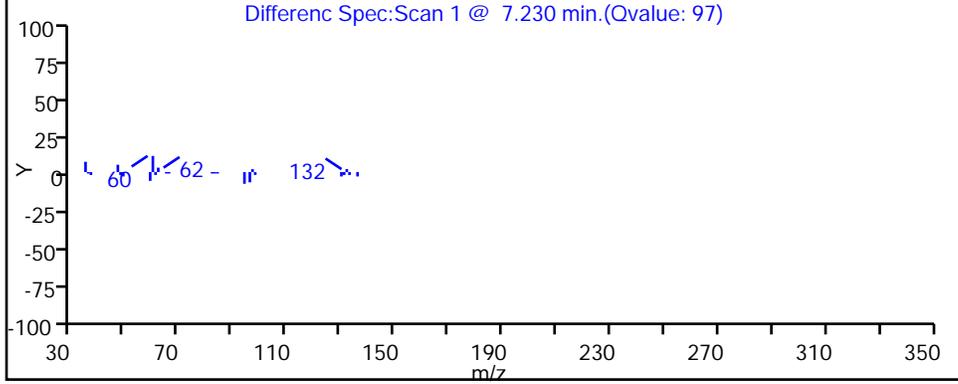
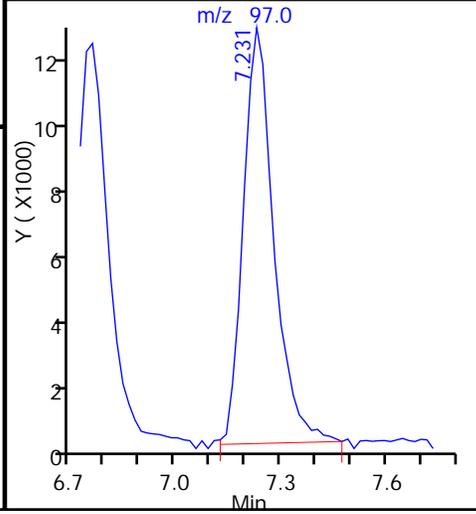
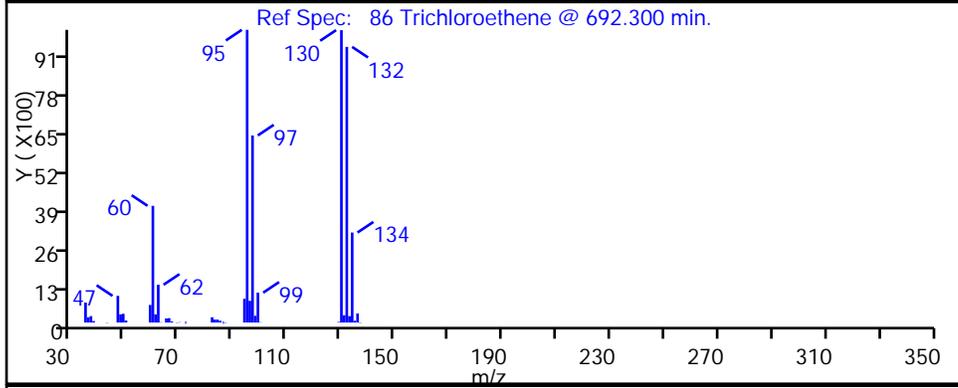
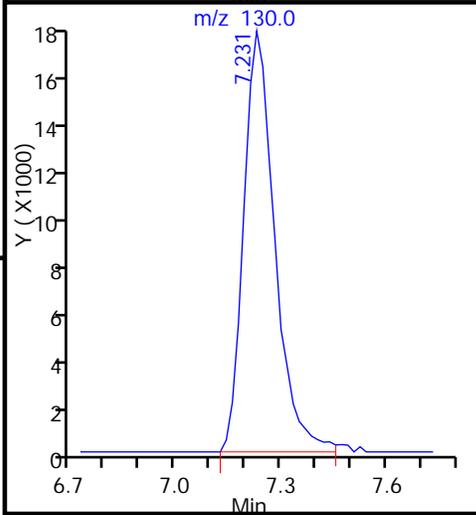
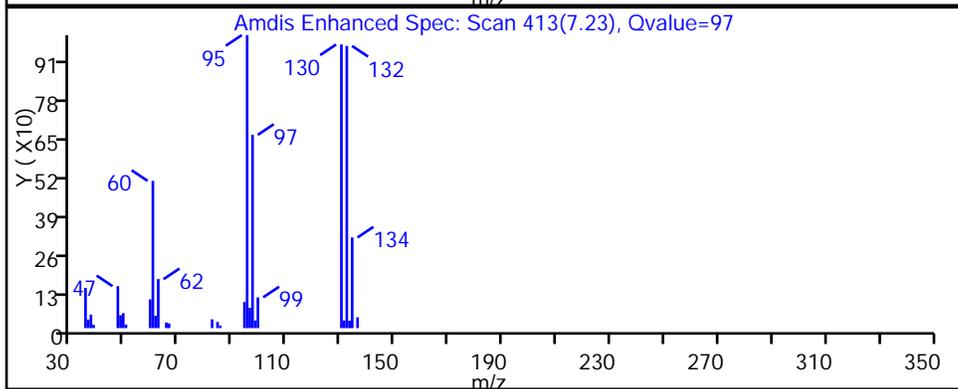
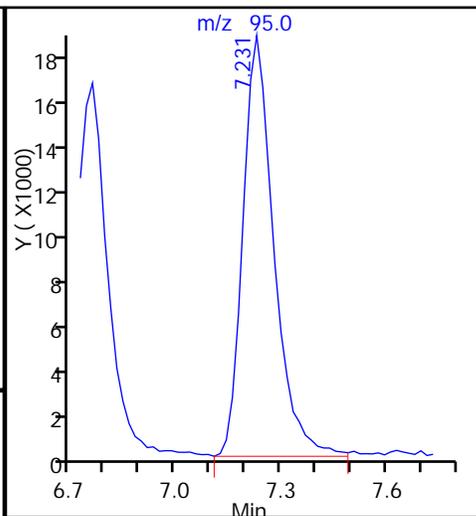
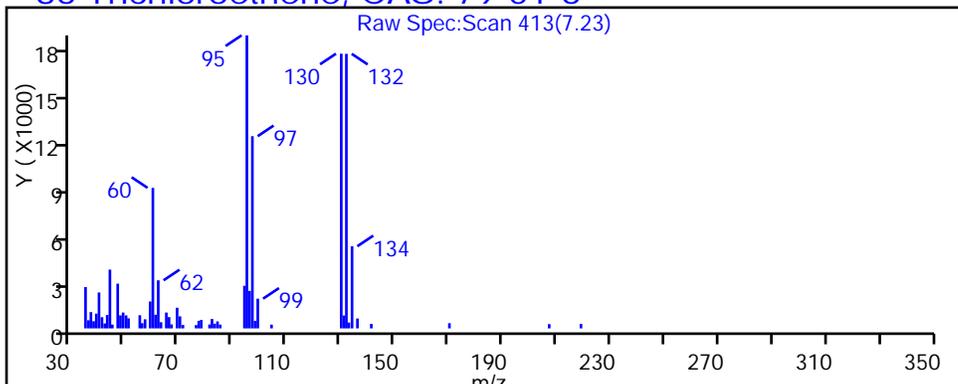
Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

86 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Client Sample ID: 54401-MW54-0515 Lab Sample ID: 280-69589-3
 Matrix: Water Lab File ID: H3017.D
 Analysis Method: 8260B Date Collected: 05/20/2015 16:20
 Sample wt/vol: 20 (mL) Date Analyzed: 05/29/2015 02:26
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279458 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	0.40	U	1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.20
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	4.8		1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	0.80	U	1.0	0.80	0.18
96-18-4	1,2,3-Trichloropropane	0.80	U	3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	0.40	U	1.0	0.40	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.81
106-93-4	1,2-Dibromoethane	0.40	U	1.0	0.40	0.18
95-50-1	1,2-Dichlorobenzene	0.40	U	1.0	0.40	0.13
107-06-2	1,2-Dichloroethane	0.40	U	1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	0.40	U	1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	0.40	U	1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	0.80	U	1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	4.0	U	6.0	4.0	1.8
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	4.0	U	5.0	4.0	1.4
106-43-4	4-Chlorotoluene	0.80	U	1.0	0.80	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	1.0
67-64-1	Acetone	6.4	U	10	6.4	1.9
71-43-2	Benzene	0.40	U	1.0	0.40	0.16
108-86-1	Bromobenzene	0.40	U	1.0	0.40	0.17
74-97-5	Bromochloromethane	0.20	U	1.0	0.20	0.10
75-27-4	Bromodichloromethane	0.55	J	1.0	0.40	0.17
75-25-2	Bromoform	0.25	J	1.0	0.40	0.19
74-83-9	Bromomethane	0.80	U	2.0	0.80	0.21
75-15-0	Carbon disulfide	1.6	U	2.0	1.6	0.45
56-23-5	Carbon tetrachloride	1.9	J	2.0	0.40	0.19
108-90-7	Chlorobenzene	0.40	U	1.0	0.40	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Client Sample ID: 54401-MW54-0515 Lab Sample ID: 280-69589-3
 Matrix: Water Lab File ID: H3017.D
 Analysis Method: 8260B Date Collected: 05/20/2015 16:20
 Sample wt/vol: 20 (mL) Date Analyzed: 05/29/2015 02:26
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279458 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-48-1	Chlorodibromomethane	0.62	J	1.0	0.40	0.17
75-00-3	Chloroethane	1.6	U	2.0	1.6	0.41
67-66-3	Chloroform	0.58	J	1.0	0.40	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.16
87-68-3	Hexachlorobutadiene	0.80	U	1.0	0.80	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
1634-04-4	Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25
75-09-2	Methylene Chloride	0.80	U	5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.34
91-20-3	Naphthalene	0.80	U	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.80	U	1.0	0.80	0.32
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
99-87-6	p-Isopropyltoluene	0.40	U	1.0	0.40	0.17
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
100-42-5	Styrene	0.40	U	1.0	0.40	0.17
75-65-0	tert-Butyl alcohol	32	U	50	32	11
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	2.3		1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.20	U	1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Client Sample ID: 54401-MW54-0515 Lab Sample ID: 280-69589-3
 Matrix: Water Lab File ID: H3017.D
 Analysis Method: 8260B Date Collected: 05/20/2015 16:20
 Sample wt/vol: 20 (mL) Date Analyzed: 05/29/2015 02:26
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279458 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		81-118
460-00-4	4-Bromofluorobenzene (Surr)	101		85-114
1868-53-7	Dibromofluoromethane (Surr)	98		80-119
2037-26-5	Toluene-d8 (Surr)	98		89-112

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H3017.D
 Lims ID: 280-69589-B-3 Lab Sample ID: 280-69589-3
 Client ID: 54401-MW54-0515
 Sample Type: Client
 Inject. Date: 29-May-2015 02:26:30 ALS Bottle#: 20 Worklist Smp#: 23
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: 280-69589-B-3 pH<2
 Operator ID: bergerb Instrument ID: VMS_H
 Method: \\Denchrom\ChromData\VMS_H\20150528-35487.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 29-May-2015 17:27:03 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK049

First Level Reviewer: bergerb Date: 29-May-2015 17:25:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.973	3.970	0.003	99	227158	250.0	
* 2 Fluorobenzene	96	6.758	6.755	0.003	97	1193635	12.5	
* 3 1,4-Dioxane-d8	96		8.670				ND	
* 4 Chlorobenzene-d5	119	11.093	11.090	0.003	92	276920	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.105	14.102	0.003	97	424827	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.923	5.920	0.003	92	502670	8.34	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	6.340	6.337	0.003	83	270326	8.09	
\$ 10 Toluene-d8 (Surr)	98	8.882	8.862	0.020	95	1120323	8.29	
\$ 11 4-Bromofluorobenzene (Surr	95	12.765	12.744	0.021	80	623923	8.58	
28 Dichlorodifluoromethane	85		2.159				ND	
30 Chloromethane	50	2.284	2.246	0.038	96	10719	0.2884	
32 Vinyl chloride	62		2.385				ND	
35 Bromomethane	94		2.681				ND	
36 Chloroethane	64		2.751				ND	
38 Trichlorofluoromethane	101		2.977				ND	
45 1,1-Dichloroethene	96	3.468	3.465	0.003	94	170917	4.79	
47 Acetone	43		3.500				ND	
50 Carbon disulfide	76		3.709				ND	
54 Methylene Chloride	84		3.935				ND	
55 2-Methyl-2-propanol	59		4.057				ND	
58 trans-1,2-Dichloroethene	96		4.231				ND	
56 Methyl tert-butyl ether	73		4.231				ND	
60 1,1-Dichloroethane	63		4.684				ND	
67 2-Butanone (MEK)	43		5.345				ND	
66 2,2-Dichloropropane	77		5.363				ND	
65 cis-1,2-Dichloroethene	96		5.363				ND	
73 Chlorobromomethane	128		5.641				ND	
75 Chloroform	83	5.714	5.711	0.003	96	46226	0.5846	
76 1,1,1-Trichloroethane	97		5.972				ND	
78 1,1-Dichloropropene	75		6.146				ND	
79 Carbon tetrachloride	117	6.184	6.181	0.003	98	133588	1.90	
81 Benzene	78		6.407				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
82 1,2-Dichloroethane	62		6.425				ND	
86 Trichloroethene	95	7.228	7.225	0.003	96	119332	2.35	
90 1,2-Dichloropropane	63		7.521				ND	
92 Dibromomethane	93		7.678				ND	
94 Dichlorobromomethane	83	7.890	7.887	0.003	97	39955	0.5496	
97 cis-1,3-Dichloropropene	75		8.479				ND	
98 4-Methyl-2-pentanone (MIBK)	43		8.705				ND	
99 Toluene	91		8.966				ND	
100 trans-1,3-Dichloropropene	75		9.280				ND	
102 1,1,2-Trichloroethane	97		9.541				ND	
103 Tetrachloroethene	164		9.750				ND	
104 1,3-Dichloropropane	76		9.785				ND	
105 2-Hexanone	43		9.906				ND	
108 Chlorodibromomethane	129	10.136	10.133	0.003	89	30513	0.6173	
109 Ethylene Dibromide	107		10.324				ND	
111 Chlorobenzene	112		11.143				ND	
112 1,1,1,2-Tetrachloroethane	131		11.282				ND	
113 Ethylbenzene	106		11.317				ND	
114 m-Xylene & p-Xylene	106		11.491				ND	
115 o-Xylene	106		12.065				ND	
116 Styrene	104		12.083				ND	
117 Bromoform	173	12.347	12.344	0.003	88	6658	0.2497	
118 Isopropylbenzene	105		12.553				ND	
122 Bromobenzene	156		12.936				ND	
121 1,1,2,2-Tetrachloroethane	83		12.936				ND	
123 1,2,3-Trichloropropane	110		12.988				ND	
125 N-Propylbenzene	120		13.075				ND	
126 2-Chlorotoluene	126		13.179				ND	
127 1,3,5-Trimethylbenzene	105		13.284				ND	
128 4-Chlorotoluene	126		13.301				ND	
129 tert-Butylbenzene	119		13.667				ND	
130 1,2,4-Trimethylbenzene	105		13.719				ND	
131 sec-Butylbenzene	134		13.911				ND	
132 1,3-Dichlorobenzene	146		14.032				ND	
133 4-Isopropyltoluene	119		14.067				ND	
134 1,4-Dichlorobenzene	146		14.137				ND	
137 n-Butylbenzene	91		14.503				ND	
138 1,2-Dichlorobenzene	146		14.520				ND	
139 1,2-Dibromo-3-Chloropropan	157		15.303				ND	
144 1,2,3-Trichlorobenzene	180		16.069				ND	
142 Hexachlorobutadiene	225		16.226				ND	
143 Naphthalene	128		16.296				ND	
141 1,2,4-Trichlorobenzene	180		16.522				ND	

Reagents:

MV-568718-D_00002

Amount Added: 1.00

Units: uL

Run Reagent

MV-ARCH SS A_00042

Amount Added: 0.68

Units: uL

Run Reagent

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H3017.D

Injection Date: 29-May-2015 02:26:30

Instrument ID: VMS_H

Operator ID: bergerb

Lims ID: 280-69589-B-3

Lab Sample ID: 280-69589-3

Worklist Smp#: 23

Client ID: 54401-MW54-0515

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

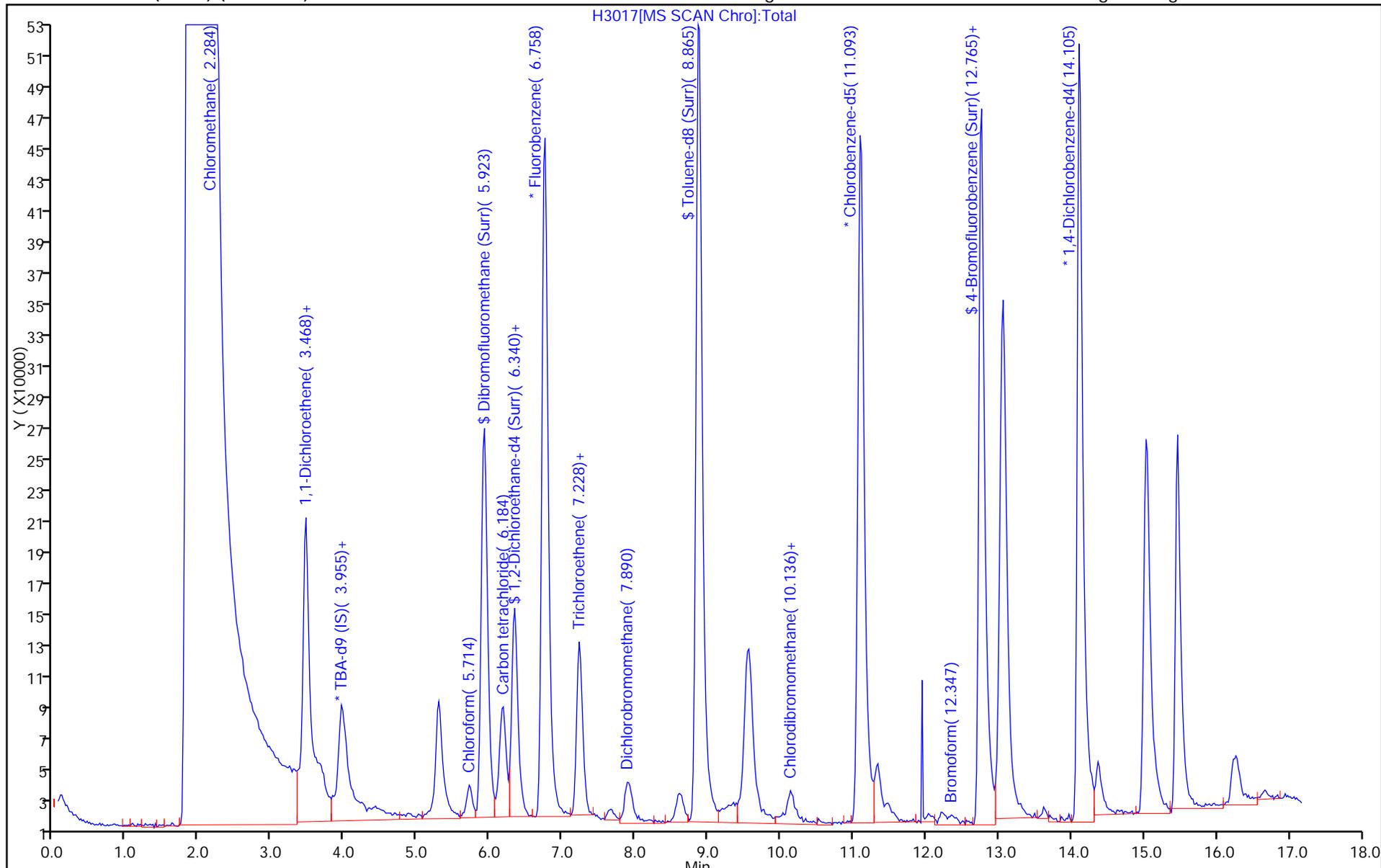
ALS Bottle#: 20

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H3017.D

Injection Date: 29-May-2015 02:26:30

Instrument ID: VMS_H

Lims ID: 280-69589-B-3

Lab Sample ID: 280-69589-3

Client ID: 54401-MW54-0515

Operator ID: bergerb

ALS Bottle#: 20

Worklist Smp#: 23

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

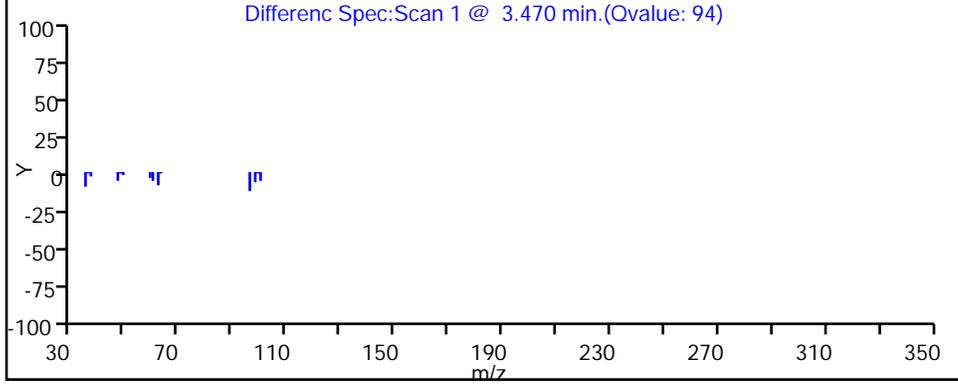
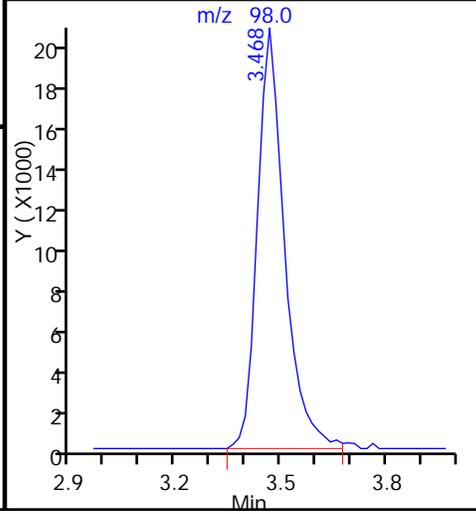
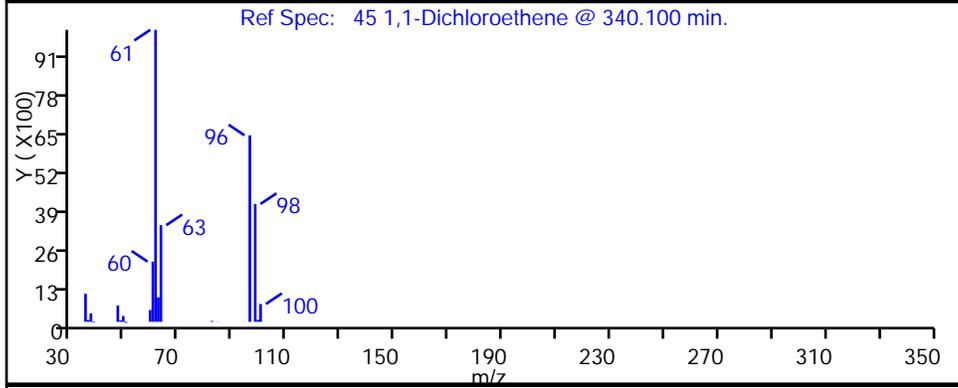
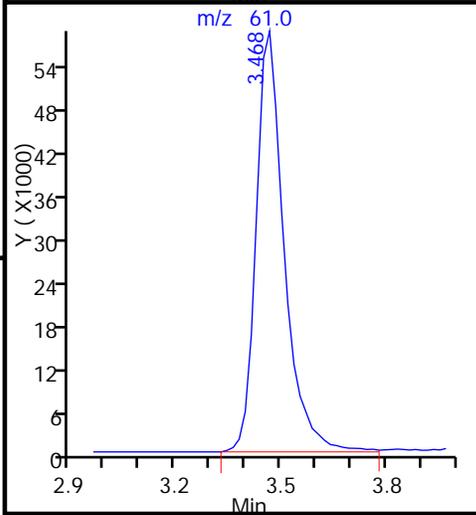
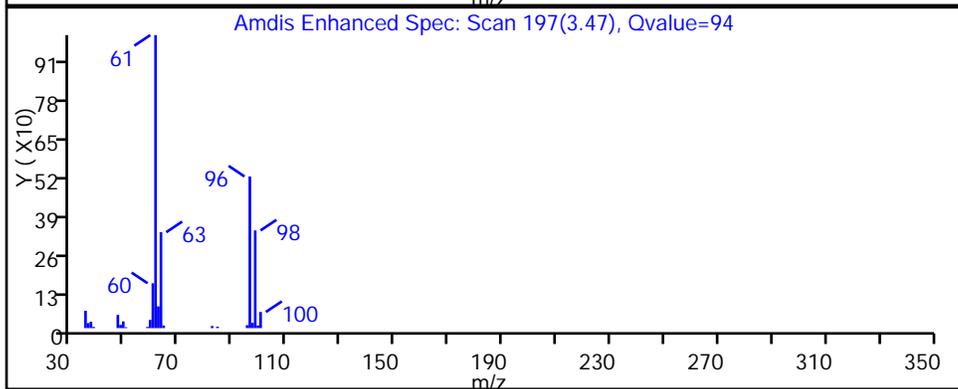
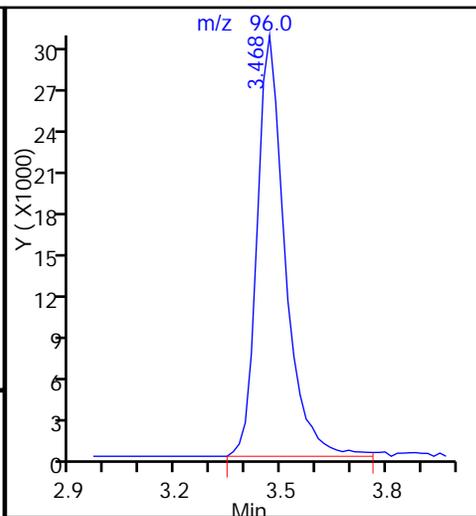
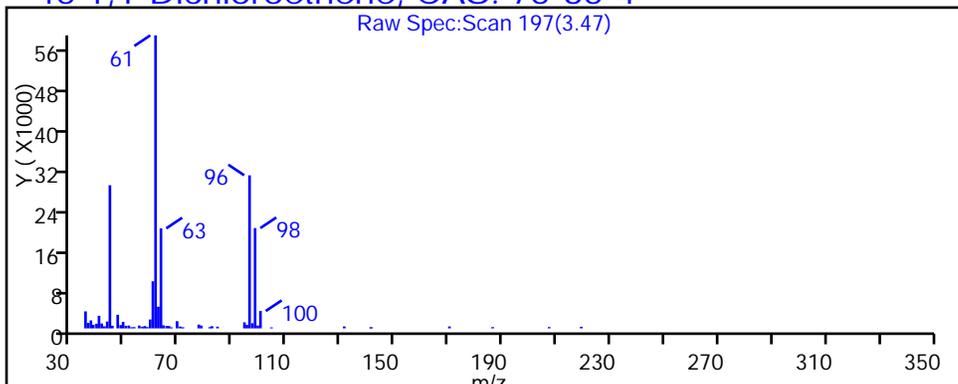
Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

45 1,1-Dichloroethene, CAS: 75-35-4



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H3017.D

Injection Date: 29-May-2015 02:26:30

Instrument ID: VMS_H

Lims ID: 280-69589-B-3

Lab Sample ID: 280-69589-3

Client ID: 54401-MW54-0515

Operator ID: bergerb

ALS Bottle#: 20

Worklist Smp#: 23

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

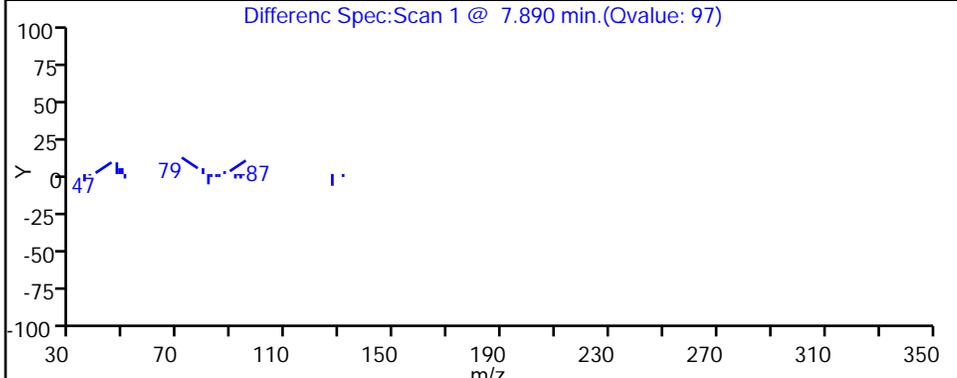
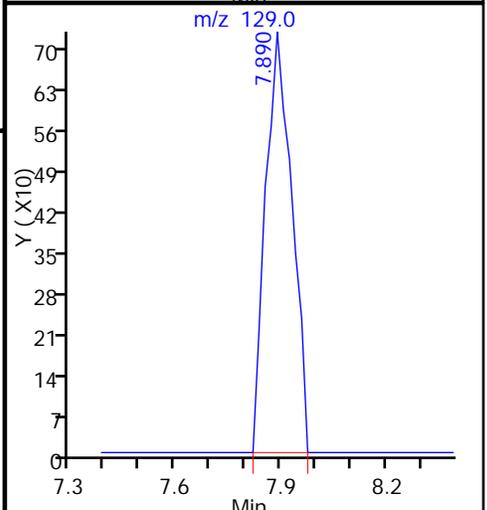
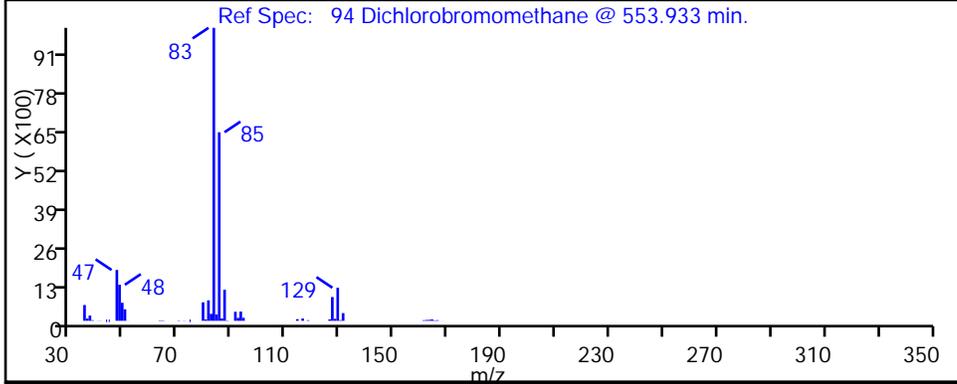
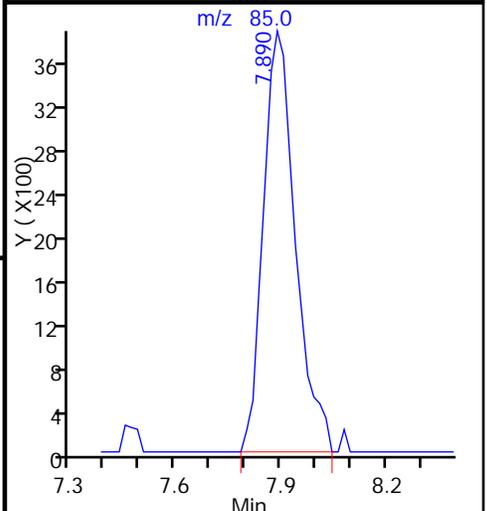
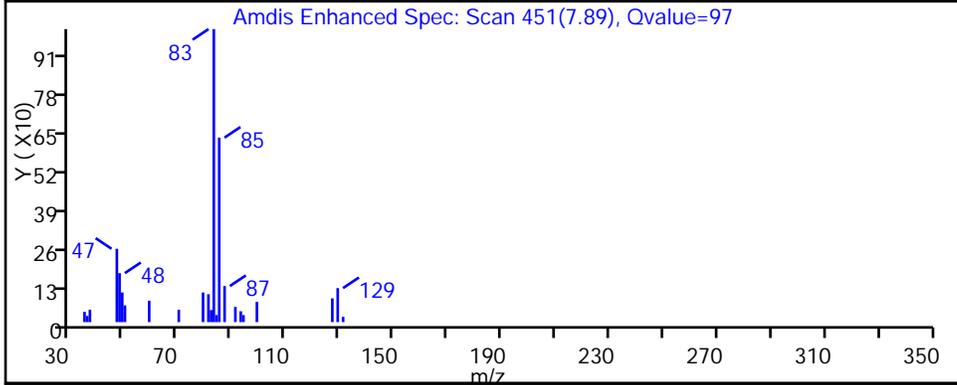
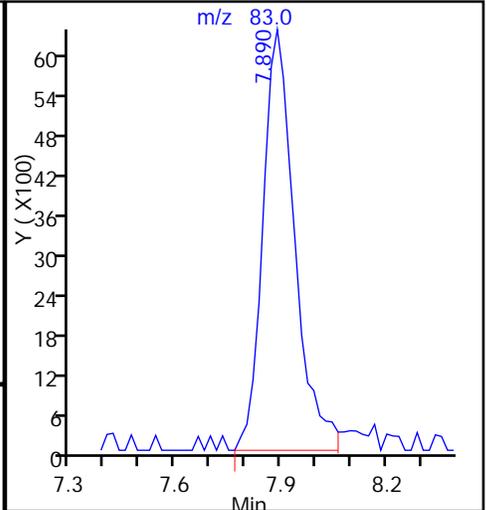
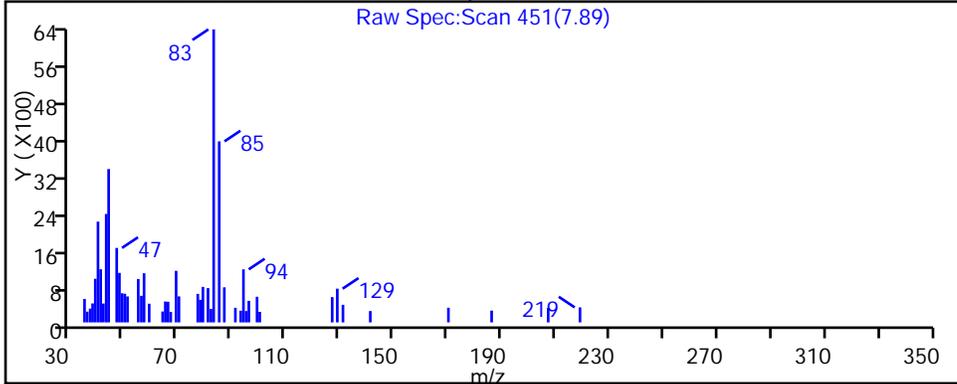
Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

94 Dichlorobromomethane, CAS: 75-27-4



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H3017.D

Injection Date: 29-May-2015 02:26:30

Instrument ID: VMS_H

Lims ID: 280-69589-B-3

Lab Sample ID: 280-69589-3

Client ID: 54401-MW54-0515

Operator ID: bergerb

ALS Bottle#: 20

Worklist Smp#: 23

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

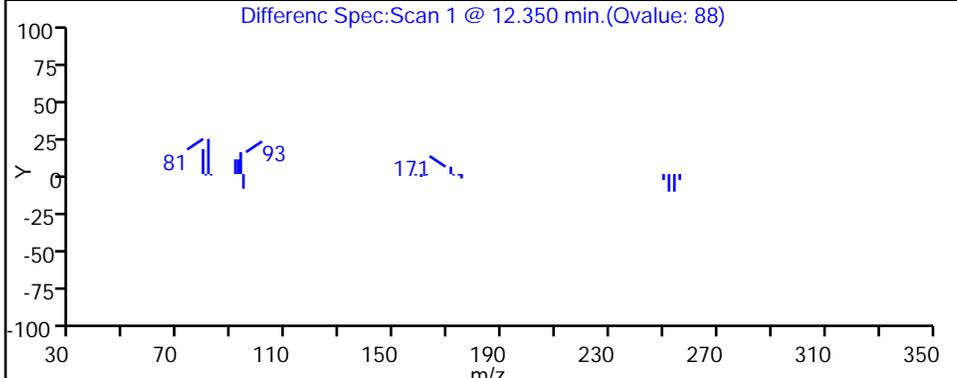
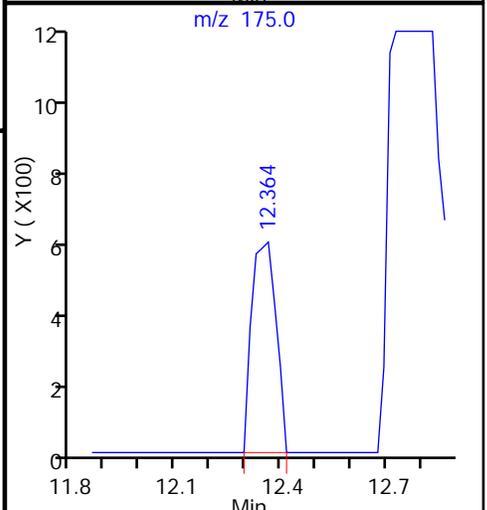
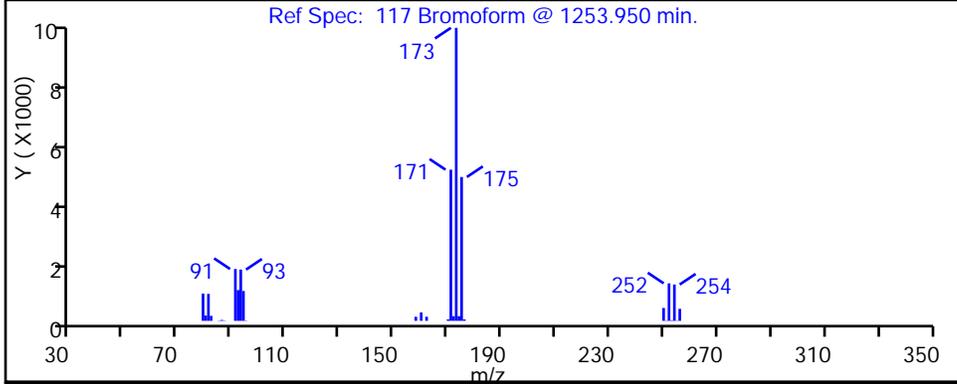
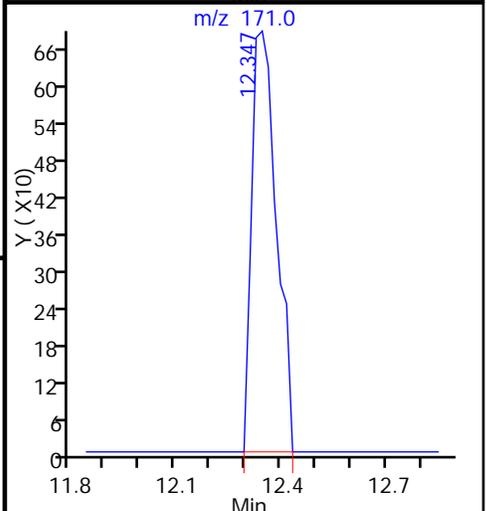
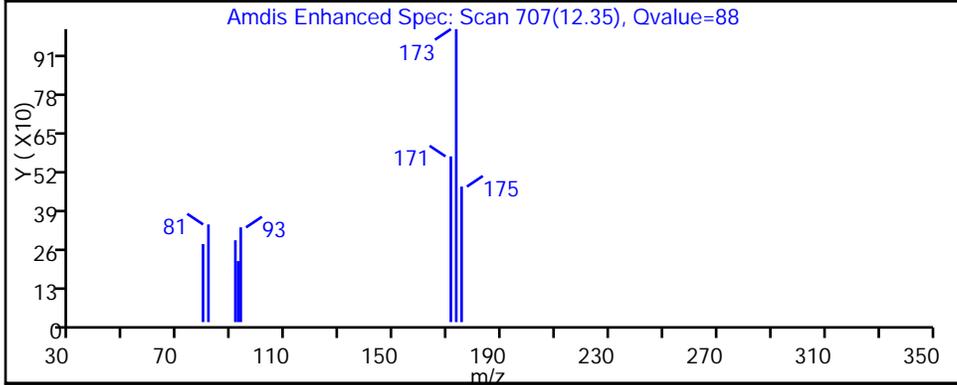
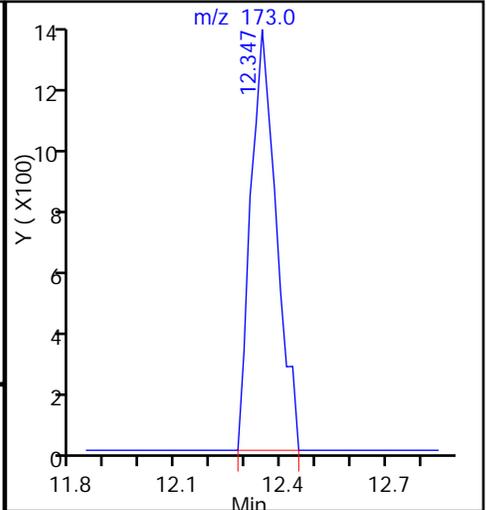
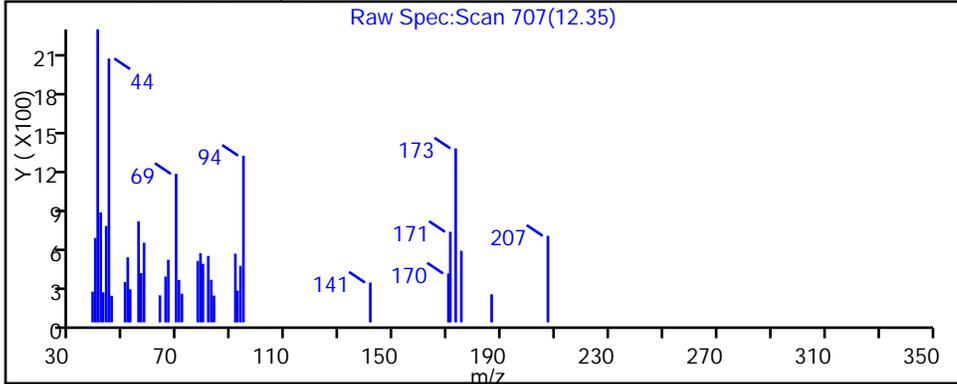
Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

117 Bromoform, CAS: 75-25-2



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H3017.D

Injection Date: 29-May-2015 02:26:30

Instrument ID: VMS_H

Lims ID: 280-69589-B-3

Lab Sample ID: 280-69589-3

Client ID: 54401-MW54-0515

Operator ID: bergerb

ALS Bottle#: 20

Worklist Smp#: 23

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

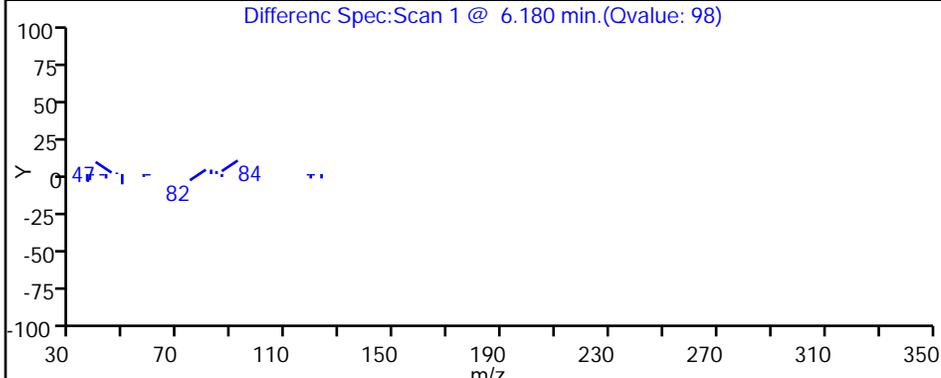
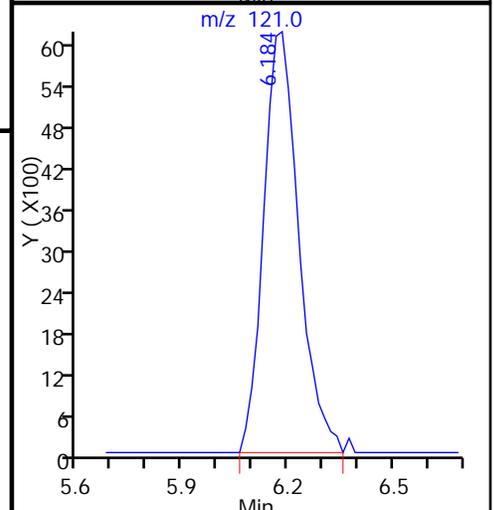
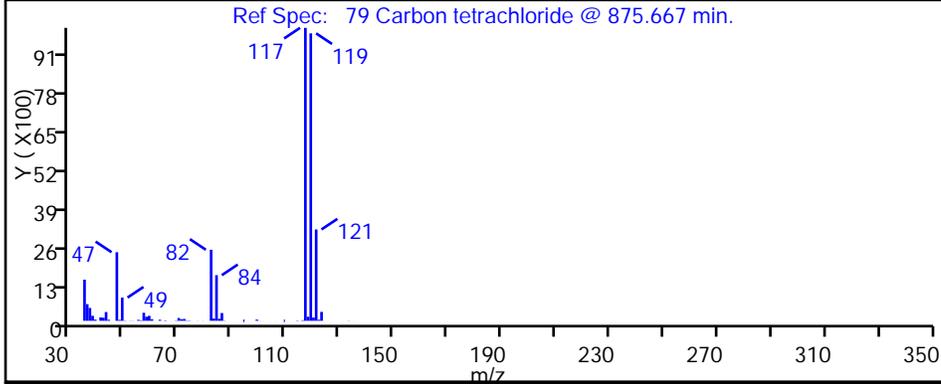
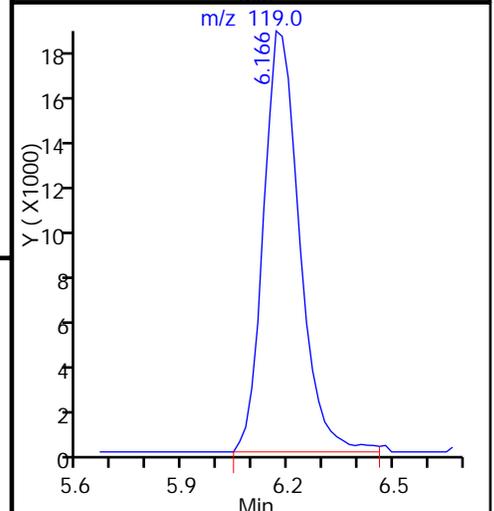
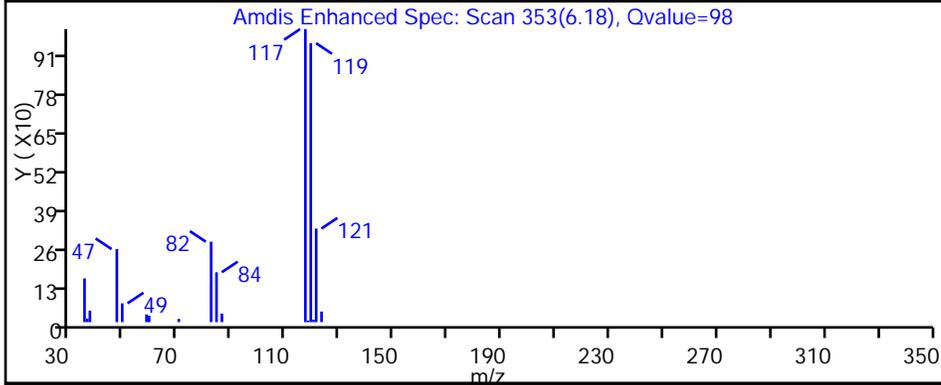
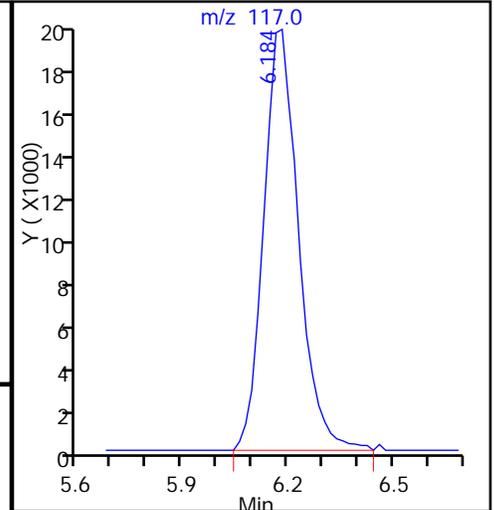
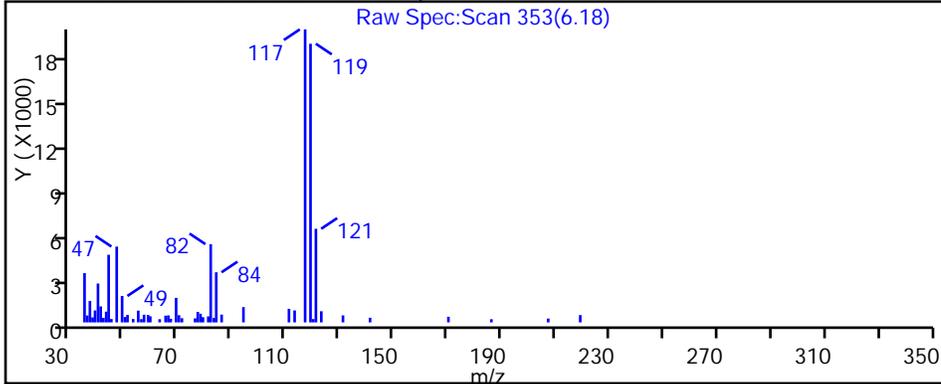
Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

79 Carbon tetrachloride, CAS: 56-23-5



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H3017.D

Injection Date: 29-May-2015 02:26:30

Instrument ID: VMS_H

Lims ID: 280-69589-B-3

Lab Sample ID: 280-69589-3

Client ID: 54401-MW54-0515

Operator ID: bergerb

ALS Bottle#: 20

Worklist Smp#: 23

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

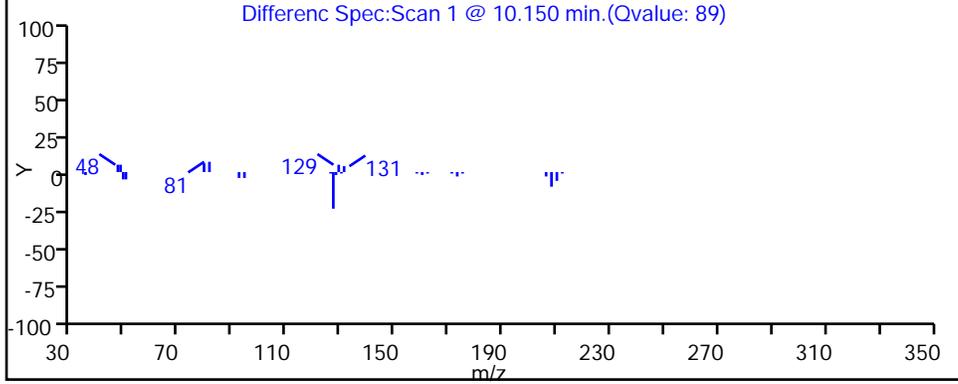
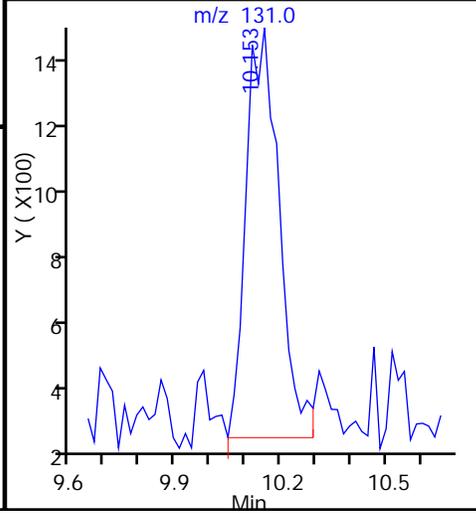
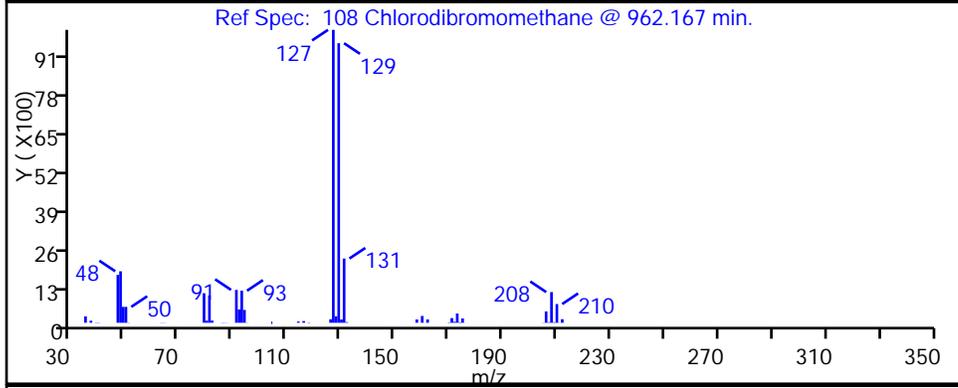
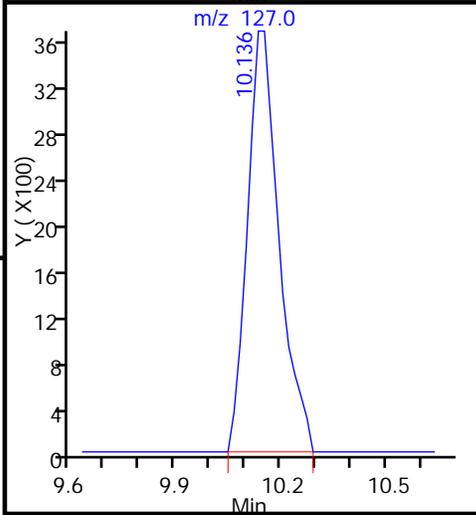
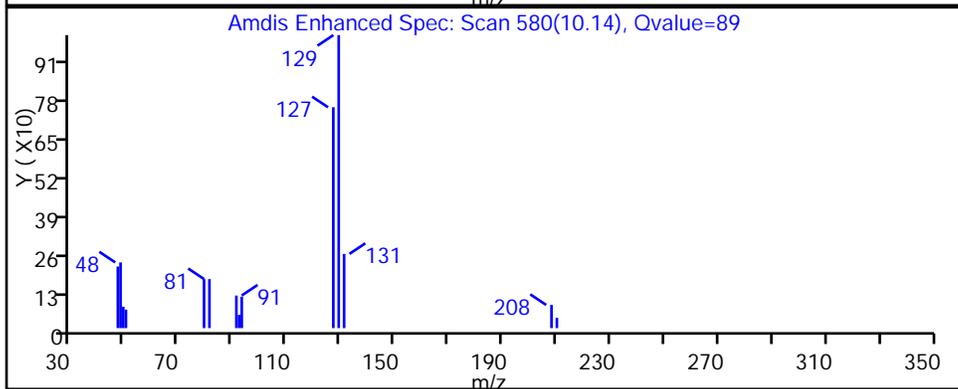
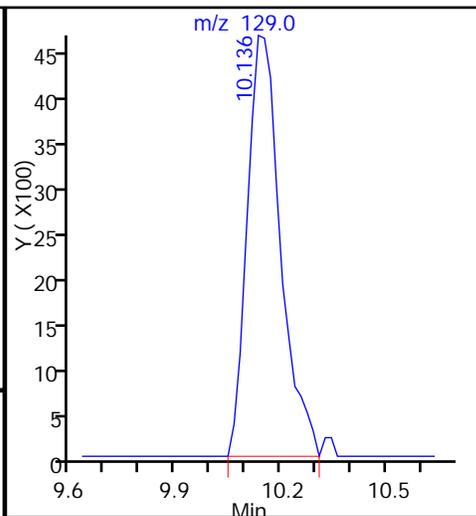
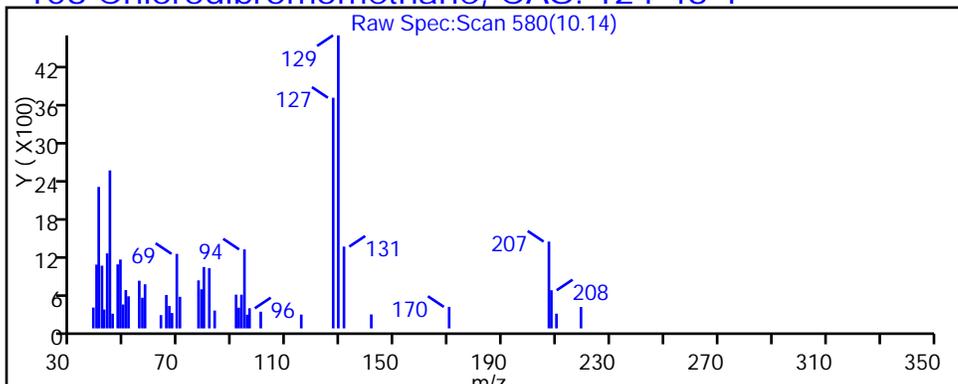
Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

108 Chlorodibromomethane, CAS: 124-48-1



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H3017.D

Injection Date: 29-May-2015 02:26:30

Instrument ID: VMS_H

Lims ID: 280-69589-B-3

Lab Sample ID: 280-69589-3

Client ID: 54401-MW54-0515

Operator ID: bergerb

ALS Bottle#: 20

Worklist Smp#: 23

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

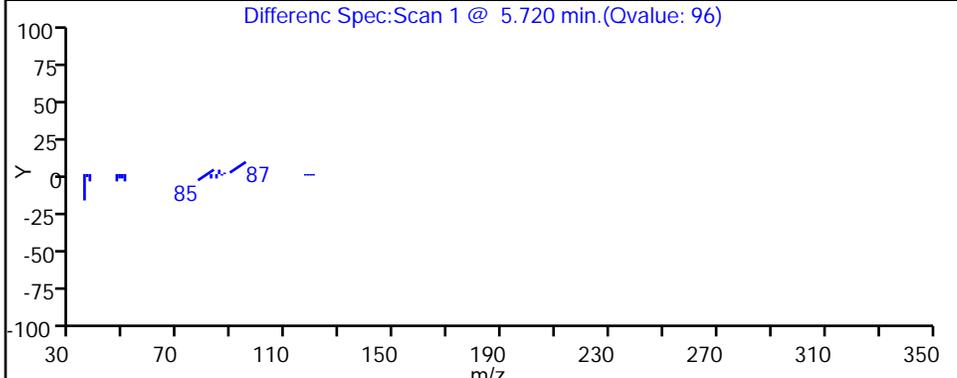
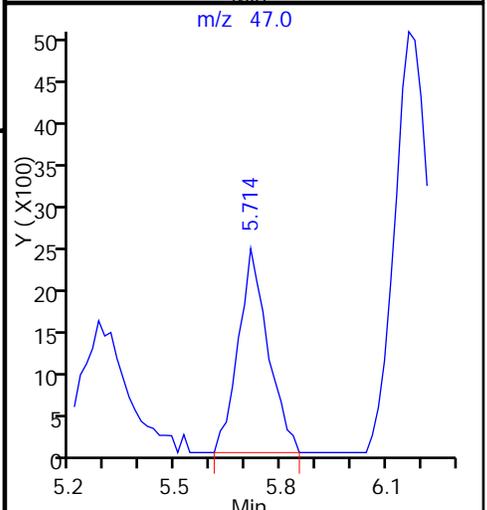
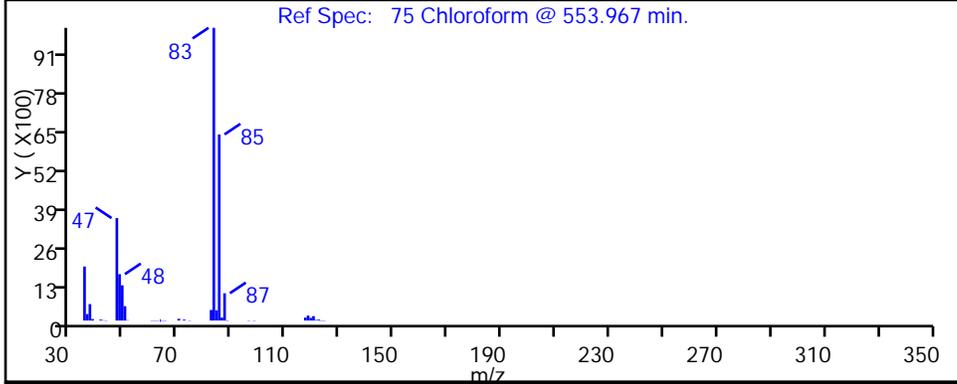
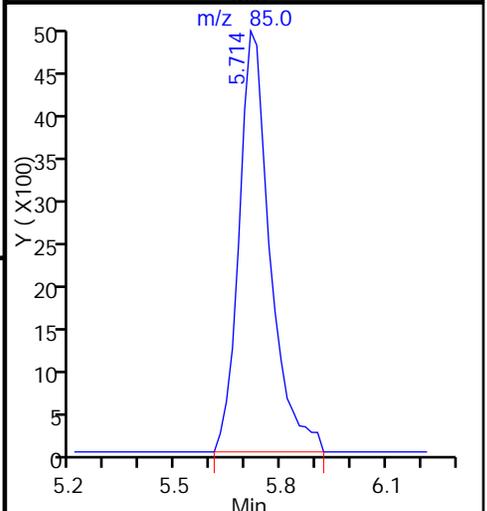
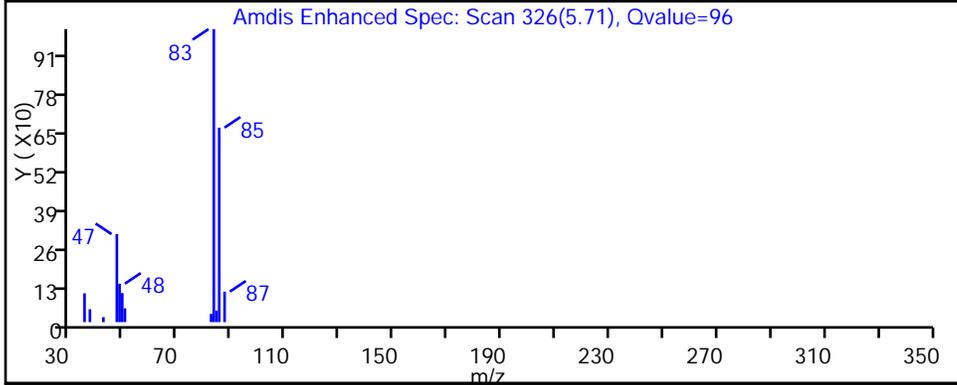
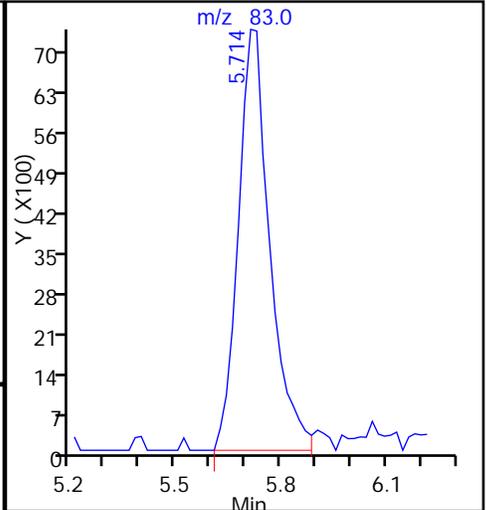
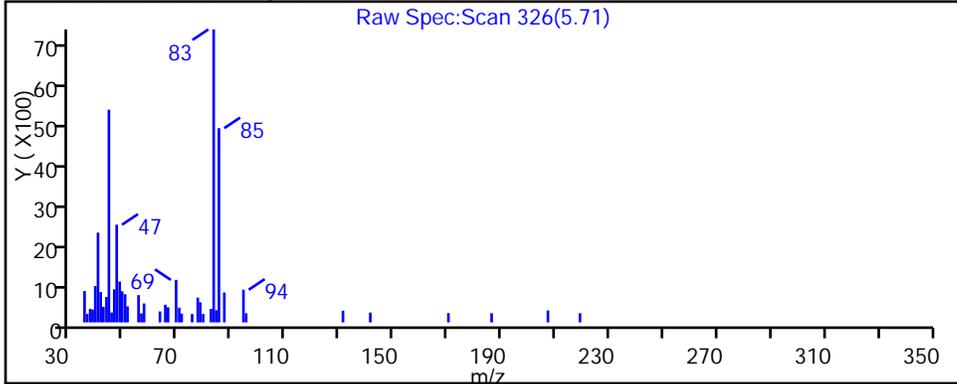
Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

75 Chloroform, CAS: 67-66-3



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H3017.D

Injection Date: 29-May-2015 02:26:30

Instrument ID: VMS_H

Lims ID: 280-69589-B-3

Lab Sample ID: 280-69589-3

Client ID: 54401-MW54-0515

Operator ID: bergerb

ALS Bottle#: 20

Worklist Smp#: 23

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

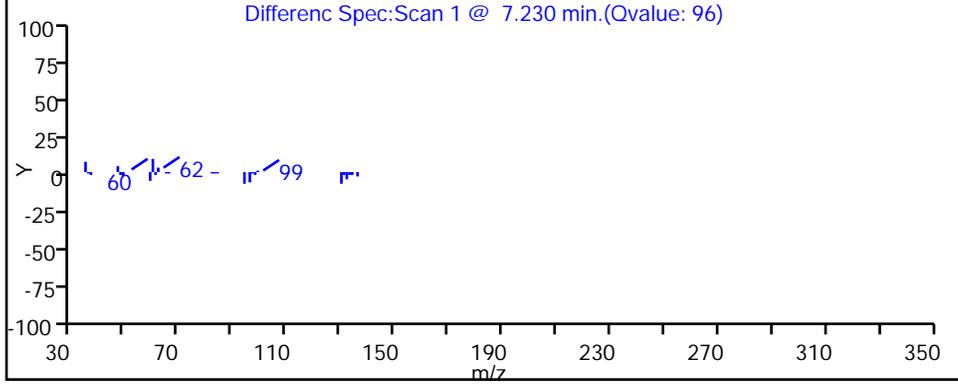
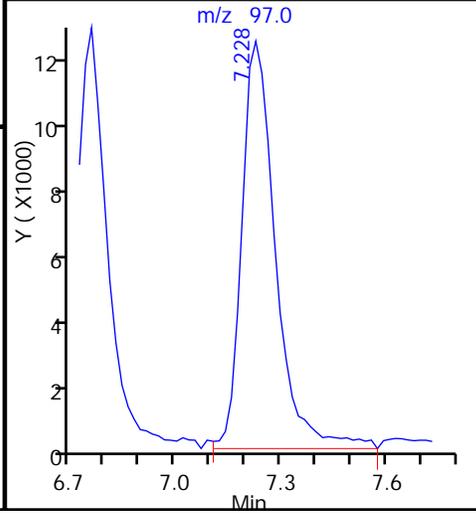
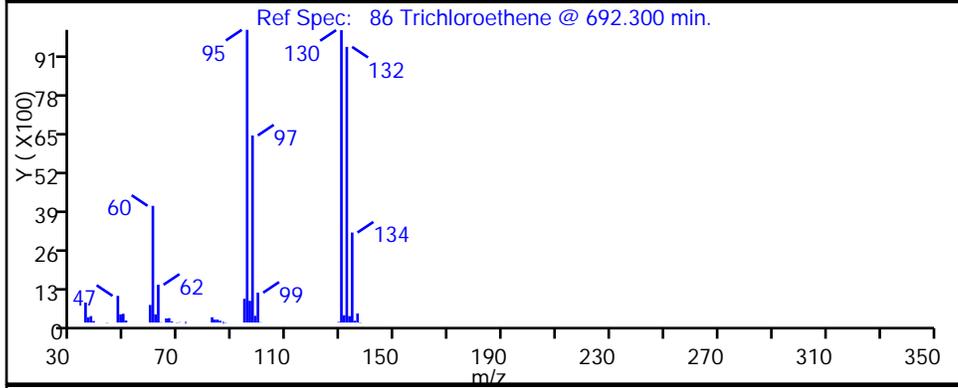
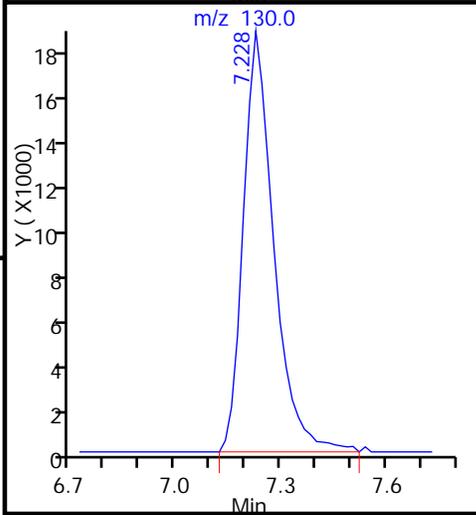
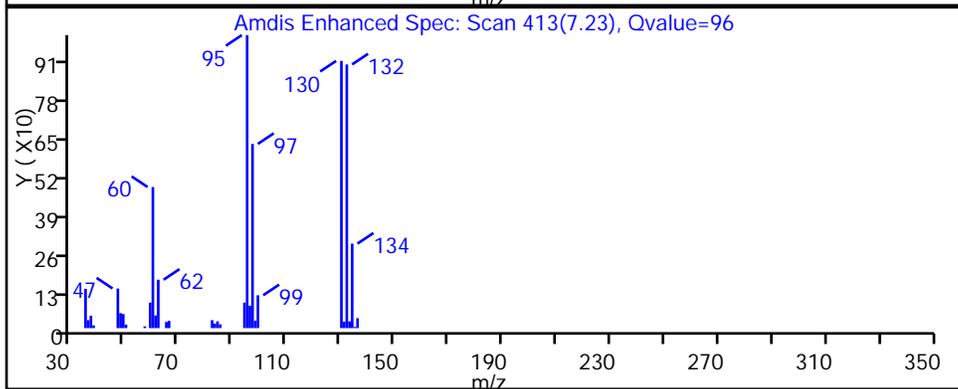
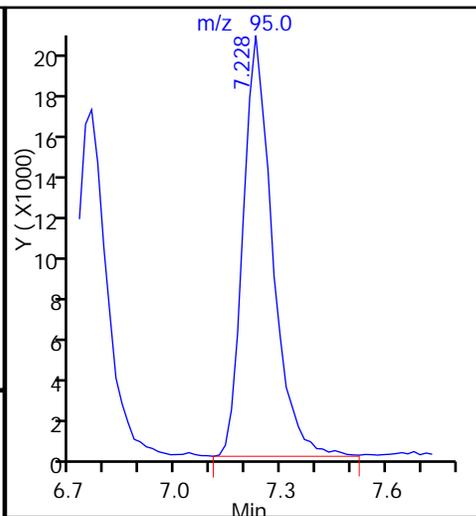
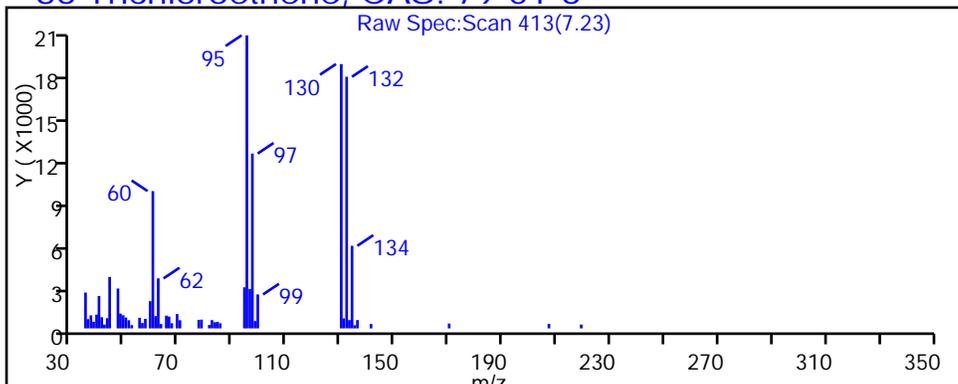
Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

86 Trichloroethene, CAS: 79-01-6



FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-69589-1 Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18 Calibration End Date: 05/28/2015 05:10 Calibration ID: 22417

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-279265/9	H2949.D
Level 2	IC 280-279265/10	H2950.D
Level 3	IC 280-279265/16	H2957.D
Level 4	IC 280-279265/11	H2951.D
Level 5	IC 280-279265/17	H2958.D
Level 6	IC 280-279265/12	H2952.D
Level 7	IC 280-279265/18	H2959.D
Level 8	IC 280-279265/13	H2953.D
Level 9	ICIS 280-279265/19	H2960.D
Level 10	IC 280-279265/14	H2954.D
Level 11	IC 280-279265/20	H2961.D
Level 12	IC 280-279265/15	H2955.D
Level 13	IC 280-279265/21	H2962.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10												
Dichlorodifluoromethane	0.6723 0.6000	0.4976 0.6115	0.5781	0.3764	0.6182	Lin1	-0.059	0.6083						0.9970		0.9900	
Chloromethane	0.4489 0.3934	0.3613 0.3949	0.3985	0.3243	0.4034	Ave		0.3892		0.1000	9.9		15.0				
Vinyl chloride	0.4524 0.3876	0.3441 0.3996	0.3885	0.2908	0.4015	Ave		0.3807			13.3		30.0				
Bromomethane	++++ 0.3222	0.3214 0.3209	0.3362	0.2639	0.3308	Ave		0.3159			8.3		15.0				
Chloroethane	++++ 0.2504	0.2352 0.2250	0.2483	0.1895	0.2400	Ave		0.2314			9.7		15.0				
Dichlorofluoromethane	++++ 0.8860	0.7676 0.8901	0.9035	0.6763	0.9126	Ave		0.8394			11.4		15.0				
Trichlorofluoromethane	0.8693 0.7802	0.6684 0.7941	0.7970	0.5425	0.8047	Ave		0.7509			14.6		15.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H

GC Column: DB-624 (75. ID: 0.53 (mm))

Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18

Calibration End Date: 05/28/2015 05:10

Calibration ID: 22417

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10												
Ethanol		0.0007	++++ 0.0007	0.0008	0.0010	Lin2	0.0307	0.0007						0.9900		0.9900	
Ethyl ether	0.2003 0.2058	0.2017 0.1812	0.2025	0.2004	0.1964	Ave		0.1983			4.1		15.0				
Acrolein	++++ 0.0143	0.0144 0.0128	0.0133	0.0132	0.0139	Ave		0.0137			4.7		15.0				
1,1-Dichloroethene	0.3671 0.3865	0.3926 0.3668	0.3796	0.3543	0.3663	Ave		0.3733			3.6		30.0				
1,1,2-Trichloro-1,2,2-trifluoroethane	0.4658 0.5324	0.5230 0.5195	0.5231	0.4862	0.5115	Ave		0.5088			4.7		15.0				
Acetone	++++ 0.0379	0.0492 0.0323	0.0392	0.0382	0.0368	Ave		0.0389			14.3		15.0				
Isopropyl alcohol	0.0058	0.0056	0.0119 0.0057	0.0071	0.0057	Lin1	0.0411	0.0057						0.9910		0.9900	
Iodomethane	0.8562 0.8522	0.8710 0.8233	0.8529	0.8008	0.8246	Ave		0.8401			2.9		15.0				
Carbon disulfide	1.6352 1.4559	1.4538 1.3951	1.4345	1.3036	1.3982	Ave		1.4395			7.0		15.0				
Acetonitrile	0.0071	0.0080	0.0146 0.0071	0.0073	0.0087	Lin1	0.0770	0.0069						0.9990		0.9900	
3-Chloro-1-propene	0.8931 0.8831	0.9161 0.8251	0.8649	0.8389	0.8450	Ave		0.8666			3.8		15.0				
Methyl acetate	0.1100 0.1258	0.1397 0.1181	0.1340	0.1233	0.1305	Ave		0.1259			7.9		15.0				
Methylene Chloride	0.8126 0.3553	0.4695 0.3052	0.3418	0.3828	0.3180	Lin2	0.1493	0.3159						0.9990		0.9900	

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H

GC Column: DB-624 (75. ID: 0.53 (mm))

Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18

Calibration End Date: 05/28/2015 05:10

Calibration ID: 22417

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10												
tert-Butyl alcohol	++++ 1.2969	1.3926 1.1641	1.2128	1.7105	1.1830	Lin1	5.3164	1.1627						0.9980		0.9900	
Acrylonitrile	0.0302 0.0323	0.0334 0.0318	0.0338	0.0328	0.0337	Ave		0.0326			4.0		15.0				
trans-1,2-Dichloroethene	0.4404 0.4346	0.4148 0.4140	0.4140	0.4093	0.4127	Ave		0.4200			2.9		15.0				
Methyl tert-butyl ether	0.7576 0.7187	0.7327 0.6516	0.7318	0.6878	0.7009	Ave		0.7116			4.9		15.0				
Hexane	3.0006 3.4517	3.3718 3.6328	3.5541	3.0644	3.3922	Ave		3.3525			7.1		15.0				
1,1-Dichloroethane	0.9471 0.8848	0.9425 0.8645	0.8754	0.8306	0.8618	Ave		0.8867		0.1000	4.9		15.0				
Vinyl acetate	0.5168 0.5940	0.5011 0.5493	0.5655	0.5143	0.6027	Ave		0.5491			7.3		15.0				
Isopropyl ether		0.2877	0.3030	0.2930	0.2907	Ave		0.2894			2.9		15.0				
2-Chloro-1,3-butadiene		0.6685	0.7001	0.6438	0.6495	Ave		0.6594			3.3		15.0				
Tert-butyl ethyl ether		1.1257	1.3981	1.1483	1.1926	Ave		1.1733			10.0		15.0				
cis-1,2-Dichloroethene	0.4228 0.4250	0.4367 0.4157	0.4329	0.4097	0.4198	Ave		0.4232			2.2		15.0				
2-Butanone (MEK)	++++ 0.0702	0.0715 0.0713	0.0799	0.0572	0.0801	Ave		0.0717			11.7		15.0				
2,2-Dichloropropane	++++ 0.8679	1.3131 0.7323	0.7976	0.9827	0.7466	Lin2	0.5711	0.7306					0.9990		0.9900		

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H

GC Column: DB-624 (75. ID: 0.53 (mm))

Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18

Calibration End Date: 05/28/2015 05:10

Calibration ID: 22417

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10												
Ethyl acetate	0.1556	0.1515	0.1738 0.1551	0.1740	0.1417	Ave		0.1586			8.1		15.0				
Propionitrile	0.0111	0.0111	0.0119 0.0111	0.0118	0.0108	Ave		0.0113			4.0		15.0				
sec-Butyl Alcohol	2.2045 1.6075	1.9139 1.6511	1.6589	1.7994	1.6941	Ave		1.7899			11.8		15.0				
Methacrylonitrile	0.0985	0.0966	0.1009 0.0964	0.1044	0.0977	Ave		0.0991			3.1		15.0				
Bromochloromethane	0.1801 0.1879	0.1777 0.1849	0.1923	0.1861	0.1908	Ave		0.1857			2.9		15.0				
Tetrahydrofuran	++++ 0.0504	0.0556 0.0481	0.0538	0.0499	0.0519	Ave		0.0516			5.3		15.0				
Chloroform	0.8073 0.8459	0.8850 0.8014	0.8295	0.8135	0.8140	Ave		0.8281			3.5		30.0				
1,1,1-Trichloroethane	0.7686 0.8114	0.8150 0.7980	0.8042	0.7482	0.7899	Ave		0.7908			3.1		15.0				
Cyclohexane	0.8385 0.8987	0.8786 0.8804	0.8952	0.8351	0.8806	Ave		0.8724			2.9		15.0				
1,1-Dichloropropene	0.7960 0.7165	0.7245 0.6834	0.6931	0.6655	0.6830	Ave		0.7089			6.1		15.0				
Carbon tetrachloride	0.6918 0.7587	0.7452 0.7592	0.7484	0.6952	0.7478	Ave		0.7352			3.9		15.0				
Isobutyl alcohol	++++ 0.6033	0.6782 0.6080	0.6248	0.5861	0.6614	Ave		0.6270			5.7		15.0				
Benzene	1.2801 1.3345	1.2923 1.3211	1.3291	1.2793	1.3300	Ave		1.3095			1.9		15.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H

GC Column: DB-624 (75. ID: 0.53 (mm))

Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18

Calibration End Date: 05/28/2015 05:10

Calibration ID: 22417

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10												
1,2-Dichloroethane	++++ 0.4011	0.4104 0.3699	0.4019	0.3966	0.3938	Ave		0.3956			3.5		15.0				
Tert-amyl methyl ether	0.8876	0.9239	0.9842 0.8734	0.9553	0.9163	Ave		0.9234			4.5		15.0				
n-Butanol	0.0035	0.0030	0.0030 0.0035	0.0036	0.0031	Ave		0.0033			9.0		15.0				
Trichloroethene	0.5069 0.5523	0.5289 0.5462	0.5490	0.5005	0.5435	Ave		0.5325			4.0		15.0				
2-Pentanone	0.2203 0.1925	0.1928 0.1834	0.2110	0.1887	0.2039	Ave		0.1989			6.7		15.0				
Methylcyclohexane	0.6575 0.8057	0.8259 0.8011	0.8100	0.7402	0.8003	Ave		0.7772			7.6		15.0				
1,2-Dichloropropane	0.5032 0.5220	0.5643 0.4938	0.5226	0.5400	0.5158	Ave		0.5231			4.5		30.0				
Methyl methacrylate	0.0516	0.0526	0.0659 0.0501	0.0535	0.0590	Ave		0.0554			10.8		15.0				
Dibromomethane	0.2801 0.2602	0.2660 0.2402	0.2617	0.2613	0.2555	Ave		0.2607			4.6		15.0				
1,4-Dioxane	++++ 0.0014	0.0007 0.0015	0.0015	0.0010	0.0017	Lin2	-0.019	0.0016						0.9930		0.9900	
Bromodichloromethane	0.7144 0.7636	0.7605 0.7600	0.7933	0.7698	0.7673	Ave		0.7613			3.1		15.0				
2-Nitropropane	0.0439	0.0392	0.0412 0.0436	0.0387	0.0388	Ave		0.0409			5.8		15.0				
2-Chloroethyl vinyl ether	++++ 0.0912	0.0991 0.1032	0.0880	0.0734	0.1061	Ave		0.0935			12.9		15.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H

GC Column: DB-624 (75. ID: 0.53 (mm))

Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18

Calibration End Date: 05/28/2015 05:10

Calibration ID: 22417

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10												
cis-1,3-Dichloropropene	2.6750 3.0354	2.9221 2.9872	3.0904	2.9018	3.0016	Ave		2.9448			4.6		15.0				
4-Methyl-2-pentanone (MIBK)	0.3442 0.2584	0.2140 0.2551	0.2956	0.1914	0.2850	Lin1	-0.015	0.2662					0.9940			0.9900	
Toluene	1.5176 1.5073	1.5648 1.4821	1.4939	1.4427	1.4985	Ave		1.5010			2.5		30.0				
trans-1,3-Dichloropropene	++++ 0.4928	0.4849 0.4522	0.4890	0.4764	0.4809	Ave		0.4794			3.0		15.0				
Ethyl methacrylate	1.4143 1.8201	2.0173 1.7673	1.9026	1.8930	1.8399	Ave		1.8078			10.5		15.0				
1,1,2-Trichloroethane	++++ 0.3015	0.3418 0.2655	0.2927	0.3160	0.2872	Ave		0.3008			8.7		15.0				
Tetrachloroethene	1.7265 2.0994	2.0522 2.2172	2.1402	1.9269	2.0726	Ave		2.0336			8.0		15.0				
1,3-Dichloropropane	2.0988 2.2579	2.4754 2.2014	2.3859	2.3518	2.2730	Ave		2.2920			5.4		15.0				
2-Hexanone	0.8284 0.7622	0.5682 0.8273	0.8838	0.5759	0.8677	Lin1	-0.441	0.8408					0.9970			0.9900	
Chlorodibromomethane	2.0740 2.1696	2.2728 2.2722	2.2949	2.2269	2.3073	Ave		2.2311			3.7		15.0				
1,2-Dibromoethane	1.4087 1.5822	1.5346 1.6100	1.6757	1.5748	1.6216	Ave		1.5725			5.4		15.0				
1-Chlorohexane	3.5084 3.4695	3.5102 3.5732	3.4262	3.2136	3.3481	Ave		3.4356			3.5		15.0				
Chlorobenzene	4.2365 4.5461	4.4956 4.6390	4.6525	4.3619	4.4491	Ave		4.4830		0.3000	3.3		15.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H

GC Column: DB-624 (75. ID: 0.53 (mm))

Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18

Calibration End Date: 05/28/2015 05:10

Calibration ID: 22417

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10												
1,1,1,2-Tetrachloroethane	1.9485 2.2117	2.1740 2.2529	2.2682	2.0985	2.1970	Ave		2.1644			5.1		15.0				
Ethylbenzene	2.0226 2.3517	2.2833 2.4001	2.4311	2.2308	2.2784	Ave		2.2854			5.9		30.0				
m-Xylene & p-Xylene	2.7785 3.1931	3.2773 3.2936	3.2573	2.7671	3.1810	Ave		3.1068			7.5		15.0				
o-Xylene	2.3533 2.7913	2.7308 2.8656	2.8595	2.7161	2.7643	Ave		2.7258			6.4		15.0				
Styrene	3.5913 4.5450	4.6319 4.6297	4.6479	4.3307	4.4769	Ave		4.4076			8.6		15.0				
Bromoform	0.9867 1.2372	1.1494 1.2669	1.3191	1.1764	1.2908	Ave		1.2038		0.1000	9.4		15.0				
Isopropylbenzene	5.4727 5.3868	5.6583 5.2474	5.4075	5.1944	5.1269	Ave		5.3563			3.4		15.0				
cis-1,4-Dichloro-2-butene		0.2326	0.1743		0.2477	Ave		0.2201			12.2		15.0				
Cyclohexanone	0.0349 0.0259	0.0206 0.0268	0.0302	0.0202	0.0297	Lin1	-0.048	0.0278					0.9950		0.9900		
Bromobenzene	1.1416 1.2551	1.2656 1.2243	1.2789	1.2435	1.2364	Ave		1.2351			3.6		15.0				
1,1,2,2-Tetrachloroethane	++++ 1.0798	1.2715 0.9706	1.1278	1.1702	1.0692	Ave		1.1148		0.3000	9.1		15.0				
1,2,3-Trichloropropane	0.3027 0.2509	0.2823 0.2211	0.2561	0.2746	0.2371	Ave		0.2607			10.7		15.0				
trans-1,4-Dichloro-2-butene	++++ 0.2927	0.3626 0.2477	0.2773	0.3113	0.2638	Ave		0.2926			14.0		15.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H

GC Column: DB-624 (75. ID: 0.53 (mm))

Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18

Calibration End Date: 05/28/2015 05:10

Calibration ID: 22417

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10												
N-Propylbenzene	1.3235 1.3387	1.3607 1.2774	1.3273	1.3060	1.2435	Ave		1.3110			3.0		15.0				
2-Chlorotoluene	1.0409 0.9993	1.0630 0.9879	1.0298	1.0278	0.9625	Ave		1.0159			3.4		15.0				
1,3,5-Trimethylbenzene	4.3251 4.0485	4.1323 3.9378	4.0787	3.9955	3.8462	Ave		4.0520			3.8		15.0				
4-Chlorotoluene	1.2606 1.2821	1.3873 1.3034	1.3287	1.3303	1.2985	Ave		1.3130			3.1		15.0				
tert-Butylbenzene	4.6423 4.4055	4.6148 4.2623	4.4069	4.2619	4.1731	Ave		4.3952			4.1		15.0				
1,2,4-Trimethylbenzene	4.0915 3.8496	4.0242 3.6791	3.8806	3.7664	3.6503	Ave		3.8488			4.3		15.0				
sec-Butylbenzene	1.1536 1.1749	1.1761 1.1523	1.1754	1.1802	1.1084	Ave		1.1601			2.2		15.0				
1,3-Dichlorobenzene	1.9475 1.8356	1.9603 1.8624	1.9028	1.8447	1.7807	Ave		1.8763			3.4		15.0				
p-Isopropyltoluene	4.7453 5.0878	5.1707 4.9754	5.1332	4.9774	4.8357	Ave		4.9894			3.1		15.0				
1,4-Dichlorobenzene	2.8174 2.9420	2.9928 2.8150	2.8873	2.9475	2.8860	Ave		2.8983			2.3		15.0				
1,2,3-Trimethylbenzene		3.3584	3.5005		3.3184	Ave		3.3437			2.7		15.0				
n-Butylbenzene	5.5526 5.2917	5.3840 5.1507	5.2530	5.0266	5.0251	Ave		5.2405			3.7		15.0				
1,2-Dichlorobenzene	1.8994 1.9763	2.0125 1.9437	2.0142	1.9990	1.9400	Ave		1.9693			2.2		15.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-69589-1 Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18 Calibration End Date: 05/28/2015 05:10 Calibration ID: 22417

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10												
	LVL 11	LVL 12	LVL 13														
1,2-Dibromo-3-Chloropropane	0.1626 0.1845	0.1878 0.1780	0.1967	0.1877	0.1896	Ave		0.1839			5.9		15.0				
1,2,4-Trichlorobenzene	1.1294 1.3379	1.3450 1.3612	1.3818	1.3498	1.3546	Ave		1.3228			6.5		15.0				
Hexachlorobutadiene	1.3053 1.3864	1.4295 1.3957	1.4103	1.3888	1.3363	Ave		1.3789			3.1		15.0				
Naphthalene	1.4838 1.4704	1.5211 1.4722	1.5652	1.4986	1.5272	Ave		1.5055			2.3		15.0				
1,2,3-Trichlorobenzene	0.9921 1.0521	1.0799 1.0578	1.0743	0.9593	1.0776	Ave		1.0419			4.5		15.0				
Dibromofluoromethane (Surr)		0.6035	0.7139 0.5948	0.6162	0.6665	Ave		0.6313			7.7		15.0				
1,2-Dichloroethane-d4 (Surr)		0.3380	0.3801 0.3301	0.3483	0.3737	Ave		0.3497			6.4		15.0				
Toluene-d8 (Surr)		5.8804	6.4381 5.6946	5.7403	6.2987	Ave		6.0984			6.1		15.0				
4-Bromofluorobenzene (Surr)		2.0522	2.5577 1.9707	1.9809	2.2556	Ave		2.1394			10.7		15.0				
	2.0194																

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-69589-1 Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18 Calibration End Date: 05/28/2015 05:10 Calibration ID: 22417

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-279265/9	H2949.D
Level 2	IC 280-279265/10	H2950.D
Level 3	IC 280-279265/16	H2957.D
Level 4	IC 280-279265/11	H2951.D
Level 5	IC 280-279265/17	H2958.D
Level 6	IC 280-279265/12	H2952.D
Level 7	IC 280-279265/18	H2959.D
Level 8	IC 280-279265/13	H2953.D
Level 9	ICIS 280-279265/19	H2960.D
Level 10	IC 280-279265/14	H2954.D
Level 11	IC 280-279265/20	H2961.D
Level 12	IC 280-279265/15	H2955.D
Level 13	IC 280-279265/21	H2962.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8	LVL 9	LVL 10	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10
Dichlorodifluoromethane	FB	Lin1	17035	42175		61856		0.300	1.00		2.00	
			247178		490322		1582945	5.00		10.0		30.0
				3195464					60.0			
Chloromethane	FB	Ave	11373	30623		53286		0.300	1.00		2.00	
			162089		338017		1032956	5.00		10.0		30.0
				2063538					60.0			
Vinyl chloride	FB	Ave	11464	29166		47784		0.300	1.00		2.00	
			159681		329568		1028076	5.00		10.0		30.0
				2088314					60.0			
Bromomethane	FB	Ave	++++	27242		43358		++++	1.00		2.00	
			132730		285208		847148	5.00		10.0		30.0
				1677127					60.0			
Chloroethane	FB	Ave	++++	19936		31142		++++	1.00		2.00	
			103163		210596		614520	5.00		10.0		30.0
				1175653					60.0			
Dichlorofluoromethane	FB	Ave	++++	65058		111136		++++	1.00		2.00	
			365019		766394		2336784	5.00		10.0		30.0
				4651419					60.0			
Trichlorofluoromethane	FB	Ave	22025	56652		89150		0.300	1.00		2.00	
			321455		675996		2060386	5.00		10.0		30.0
				4149850					60.0			
Ethanol	FB	Lin2			++++		9004				++++	100
				15621		33859			250		500	
			92015		200333			1500		3000		

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-69589-1 Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53(mm)) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18 Calibration End Date: 05/28/2015 05:10 Calibration ID: 22417

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8	LVL 9	LVL 10	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10
Ethyl ether	FB	Ave	5076 84807	17097 946871	171739	32923	502993	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Acrolein	FB	Ave	++++ 59073	12221 670949	113181	21672	354662	++++ 50.0	10.00 600	100.0	20.0	300
1,1-Dichloroethene	FB	Ave	9301 159253	33271 1917053	321941	58222	937902	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	11802 219337	44325 2715137	443684	79903	1309750	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Acetone	FB	Ave	++++ 62422	16671 674850	132884	25083	376529	++++ 20.0	4.00 240	40.0	8.00	120
Isopropyl alcohol	FB	Lin1		24803	10503	62543	10028		50.0	10.0	100	20.0
Iodomethane	FB	Ave	156601 21695 351110	73821 4302574	723408	131594	2111383	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Carbon disulfide	FB	Ave	41433 599818	123216 7290483	1216758	214216	3580245	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Acetonitrile	FB	Lin1		43880	16071	81258	19392		62.5	12.5	125	25.0
3-Chloro-1-propene	FB	Ave	239466 22629 363829	77645 4311947	733581	137857	2163538	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Methyl acetate	FB	Ave	13933 259179	59188 3085396	568374	101327	1670946	1.50 25.0	5.00 300	50.0	10.0	150
Methylene Chloride	FB	Lin2	20589 146368	39793 1594879	289949	62909	814145	0.300 5.00	1.00 60.0	10.0	2.00	30.0
tert-Butyl alcohol	TBA	Lin1	++++ 50634	10757 530360	103361	25764	300590	++++ 50.0	10.0 600	100	20.0	300

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-69589-1 Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18 Calibration End Date: 05/28/2015 05:10 Calibration ID: 22417

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)						
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		
			LVL 6	LVL 7	LVL 8	LVL 9	LVL 10	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10		
			LVL 11	LVL 12	LVL 13				LVL 11	LVL 12	LVL 13			
Acrylonitrile	FB	Ave	7644 132956	28348 1661461	286517	53920	863563	3.00 50.0	10.0 600	100	20.0	300		
trans-1,2-Dichloroethene	FB	Ave	11159 179063	35154 2163767	351195	67262	1056693	0.300 5.00	1.00 60.0	10.0	2.00	30.0		
Methyl tert-butyl ether	FB	Ave	19196 296103	62101 3405326	620688	113032	1794782	0.300 5.00	1.00 60.0	10.0	2.00	30.0		
Hexane	CBZ	Ave	18384 314081	64190 4048497	656745	113407	1936877	0.300 5.00	1.00 60.0	10.0	2.00	30.0		
1,1-Dichloroethane	FB	Ave	23998 364528	79883 4517987	742521	136484	2206706	0.300 5.00	1.00 60.0	10.0	2.00	30.0		
Vinyl acetate	FB	Ave	26188 489475	84948 5740935	959261	169021	3086662	0.600 10.0	2.00 120	20.0	4.00	60.0		
Isopropyl ether	FB	Ave	949648	158619	33342 1898580	324780	64479	37.5	6.25	1.25 75.0	12.5	2.50		
2-Chloro-1,3-butadiene	FB	Ave	1750155	294842	61627 3499683	570915	115265	30.0	5.00	1.00 60.0	10.0	2.00		
Tert-butyl ethyl ether	FB	Ave	3659958	620642	153824 7387205	1272766	264567	37.5	6.25	1.25 75.0	12.5	2.50		
cis-1,2-Dichloroethene	FB	Ave	10712 175089	37013 2172564	367183	67321	1074834	0.300 5.00	1.00 60.0	10.0	2.00	30.0		
2-Butanone (MEK)	FB	Ave	++++ 115653	24233 1491424	271060	37612	820646	++++ 20.0	4.00 240	40.0	8.00	120		
2,2-Dichloropropane	FB	Lin2	++++ 357591	111289 3826816	676578	161477	1911674	++++ 5.00	1.00 60.0	10.0	2.00	30.0		
Ethyl acetate	FB	Ave	835914	133601	30591 1689137	308502	50291	60.0	10.0	2.00 120	20.0	4.00		

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-69589-1 Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53(mm)) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18 Calibration End Date: 05/28/2015 05:10 Calibration ID: 22417

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 2	LVL 3	LVL 4	LVL 5	
			LVL 6	LVL 7	LVL 8	LVL 9	LVL 10	LVL 7	LVL 8	LVL 9	LVL 10	
			LVL 11	LVL 12	LVL 13		LVL 11	LVL 12	LVL 13			
Propionitrile	FB	Ave		61262	13113	130541	23893		62.5	12.5	125	25.0
			374048		752658			375		750		
sec-Butyl Alcohol	TBA	Ave	15358	44351	424147	81308	1291377	9.00	30.0	300	60.0	900
			188288	2256681				150	1800			
Methacrylonitrile	FB	Ave		426154	88804	925891	173321		50.0	600	100	20.0
			2645878		5249270			300				
Bromochloromethane	FB	Ave	4564	15065	163111	30589	488660	0.300	1.00	10.0	2.00	30.0
			77430	966337				5.00	60.0			
Tetrahydrofuran	FB	Ave	++++	9425	91342	16390	265724	++++	2.00	20.0	4.00	60.0
			41570	502514				10.0	120			
Chloroform	FB	Ave	20454	75009	703605	133676	2084195	0.300	1.00	10.0	2.00	30.0
			348497	4188258				5.00	60.0			
1,1,1-Trichloroethane	FB	Ave	19475	69076	682150	122948	2022539	0.300	1.00	10.0	2.00	30.0
			334275	4170262				5.00	60.0			
Cyclohexane	FB	Ave	21245	74464	759284	137225	2254936	0.300	1.00	10.0	2.00	30.0
			370277	4600736				5.00	60.0			
1,1-Dichloropropene	FB	Ave	20169	61407	587910	109356	1748830	0.300	1.00	10.0	2.00	30.0
			295185	3571391				5.00	60.0			
Carbon tetrachloride	FB	Ave	17528	63160	634790	114248	1914881	0.300	1.00	10.0	2.00	30.0
			312599	3967597				5.00	60.0			
Isobutyl alcohol	TBA	Ave	++++	13096	133112	22070	420168	++++	25.0	250	50.0	750
			58888	692521				125	1500			
Benzene	FB	Ave	32434	109532	1127346	210215	3405649	0.300	1.00	10.0	2.00	30.0
			549811	6903972				5.00	60.0			
1,2-Dichloroethane	FB	Ave	++++	34787	340868	65169	1008279	++++	1.00	10.0	2.00	30.0
			165237	1932916				5.00	60.0			

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H

GC Column: DB-624 (75. ID: 0.53 (mm))

Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18

Calibration End Date: 05/28/2015 05:10

Calibration ID: 22417

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 2	LVL 3	LVL 4	LVL 5	
			LVL 6	LVL 7	LVL 8	LVL 9	LVL 10	LVL 7	LVL 8	LVL 9	LVL 10	
			LVL 11	LVL 12	LVL 13		LVL 11	LVL 12	LVL 13			
Tert-amyl methyl ether	FB	Ave		509379	108283	1058840	203262		6.25	1.25	12.5	2.50
			2980183		5944725			37.5		75.0		
n-Butanol	FB	Ave		32899	6625	80688	13826		125	25.0	250	50.0
			237384		479232			750		1500		
Trichloroethene	FB	Ave	12844	44827		82244		0.300	1.00		2.00	
			227548		465659		1391651	5.00		10.0		30.0
				2854202					60.0			
2-Pentanone	FB	Ave	22323	65366		124028		1.20	4.00		8.00	
			317235		715858		2088712	20.0		40.0		120
				3833019					240			
Methylcyclohexane	FB	Ave	16660	69997		121641		0.300	1.00		2.00	
			331927		687055		2049189	5.00		10.0		30.0
				4186466					60.0			
1,2-Dichloropropane	FB	Ave	12750	47827		88743		0.300	1.00		2.00	
			215066		443299		1320707	5.00		10.0		30.0
				2580688					60.0			
Methyl methacrylate	FB	Ave			11608		20939			2.00		4.00
			277060		46363		94799		10.0	120	20.0	
					545200			60.0				
Dibromomethane	FB	Ave	7097	22545		42931		0.300	1.00		2.00	
			107201		221961		654298	5.00		10.0		30.0
				1255247					60.0			
1,4-Dioxane	FB	Lin2	+++++	1190		3158		+++++	20.0		40.0	
			11405		24744		87288	100		200		600
				154119					1200			
Bromodichloromethane	FB	Ave	18101	64456		126497		0.300	1.00		2.00	
			314609		672865		1964681	5.00		10.0		30.0
				3971466					60.0			
2-Nitropropane	FB	Ave			7254		13786			2.00		4.00
				34617		68670			10.0	120	20.0	
			235853		474539			60.0				
2-Chloroethyl vinyl ether	FB	Ave	+++++	8401		12060		+++++	1.00		2.00	
			37567		74647		271671	5.00		10.0		30.0
				539090					60.0			
cis-1,3-Dichloropropene	CBZ	Ave	16389	55629		107388		0.300	1.00		2.00	
			276201		571072		1713888	5.00		10.0		30.0
				3329041					60.0			

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H

GC Column: DB-624 (75. ID: 0.53 (mm))

Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18

Calibration End Date: 05/28/2015 05:10

Calibration ID: 22417

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)						
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		
			LVL 6	LVL 7	LVL 8	LVL 9	LVL 10	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10		
			LVL 11	LVL 12	LVL 13				LVL 11	LVL 12	LVL 13			
4-Methyl-2-pentanone (MIBK)	FB	Lin1	34884 425851	72563 5332900	1002764	125802	2918765	1.20 20.0	4.00 240	40.0	8.00	120		
Toluene	FB	Ave	38452 621009	132622 7745216	1267160	237075	3836921	0.300 5.00	1.00 60.0	10.0	2.00	30.0		
trans-1,3-Dichloropropene	FB	Ave	++++ 203021	41101 2363176	414785	78291	1231322	++++ 5.00	1.00 60.0	10.0	2.00	30.0		
Ethyl methacrylate	CBZ	Ave	8665 165619	38403 1969555	351571	70056	1050575	0.300 5.00	1.00 60.0	10.0	2.00	30.0		
1,1,2-Trichloroethane	FB	Ave	++++ 124206	28973 1387307	248293	51927	735362	++++ 5.00	1.00 60.0	10.0	2.00	30.0		
Tetrachloroethene	CBZ	Ave	10578 191028	39068 2470886	395487	71310	1183439	0.300 5.00	1.00 60.0	10.0	2.00	30.0		
1,3-Dichloropropane	CBZ	Ave	12859 205450	47124 2453301	440887	87035	1297830	0.300 5.00	1.00 60.0	10.0	2.00	30.0		
2-Hexanone	CBZ	Lin1	20301 277410	43268 3687649	653257	85245	1981716	1.20 20.0	4.00 240	40.0	8.00	120		
Chlorodibromomethane	CBZ	Ave	12707 197422	43268 2532153	424072	82411	1317455	0.300 5.00	1.00 60.0	10.0	2.00	30.0		
1,2-Dibromoethane	CBZ	Ave	8631 143966	29215 1794214	309647	58280	925921	0.300 5.00	1.00 60.0	10.0	2.00	30.0		
1-Chlorohexane	CBZ	Ave	21495 315700	66824 3982029	633113	118927	1911706	0.300 5.00	1.00 60.0	10.0	2.00	30.0		
Chlorobenzene	CBZ	Ave	25956 413665	85583 5169847	859727	161425	2540363	0.300 5.00	1.00 60.0	10.0	2.00	30.0		
1,1,1,2-Tetrachloroethane	CBZ	Ave	11938 201252	41387 2510665	419142	77661	1254447	0.300 5.00	1.00 60.0	10.0	2.00	30.0		

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-69589-1 Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18 Calibration End Date: 05/28/2015 05:10 Calibration ID: 22417

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)						
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		
			LVL 6	LVL 7	LVL 8	LVL 9	LVL 10	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10		
			LVL 11	LVL 12	LVL 13				LVL 11	LVL 12	LVL 13			
Ethylbenzene	CBZ	Ave	12392 213988	43467 2674714	449228	82557	1300912	0.300 5.00	1.00 60.0	10.0	2.00	30.0		
m-Xylene & p-Xylene	CBZ	Ave	17023 290550	62391 3670522	601905	102405	1816296	0.300 5.00	1.00 60.0	10.0	2.00	30.0		
o-Xylene	CBZ	Ave	14418 253986	51986 3193493	528399	100515	1578391	0.300 5.00	1.00 60.0	10.0	2.00	30.0		
Styrene	CBZ	Ave	22003 413563	88179 5159432	858871	160271	2556260	0.300 5.00	1.00 60.0	10.0	2.00	30.0		
Bromoform	CBZ	Ave	6045 112580	21881 1411916	243755	43536	737056	0.300 5.00	1.00 60.0	10.0	2.00	30.0		
Isopropylbenzene	DCB	Ave	48827 812395	171044 10313550	1680664	305501	4996844	0.300 5.00	1.00 60.0	10.0	2.00	30.0		
cis-1,4-Dichloro-2-butene	DCB	Ave	206859	35995	5565 412278	75289	15634	30.0	5.00	60.0	1.00	10.0	2.00	
Cyclohexanone	CBZ	Lin1	8548 94188	15703 1194077	223269	29957	677839	12.0 200	40.0 2400	400	80.0	1200		
Bromobenzene	DCB	Ave	10185 189284	38258 2406376	397495	73134	1204988	0.300 5.00	1.00 60.0	10.0	2.00	30.0		
1,1,2,2-Tetrachloroethane	DCB	Ave	++++ 162847	38437 1907715	350506	68821	1042084	++++ 5.00	1.00 60.0	10.0	2.00	30.0		
1,2,3-Trichloropropane	DCB	Ave	2701 37836	8533 434508	79592	16148	231112	0.300 5.00	1.00 60.0	10.0	2.00	30.0		
trans-1,4-Dichloro-2-butene	DCB	Ave	++++ 44139	10962 486849	86189	18311	257129	++++ 5.00	1.00 60.0	10.0	2.00	30.0		
N-Propylbenzene	DCB	Ave	11808 201896	41134 2510741	412525	76813	1211930	0.300 5.00	1.00 60.0	10.0	2.00	30.0		

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H

GC Column: DB-624 (75. ID: 0.53 (mm))

Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18

Calibration End Date: 05/28/2015 05:10

Calibration ID: 22417

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8	LVL 9	LVL 10	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10
2-Chlorotoluene	DCB	Ave	9287 150706	32135 1941695	320058	60448	938094	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,3,5-Trimethylbenzene	DCB	Ave	38588 610567	124917 7739677	1267667	234990	3748579	0.300 5.00	1.00 60.0	10.0	2.00	30.0
4-Chlorotoluene	DCB	Ave	11247 193360	41938 2561711	412960	78238	1265565	0.300 5.00	1.00 60.0	10.0	2.00	30.0
tert-Butylbenzene	DCB	Ave	41418 664399	139500 8377315	1369653	250654	4067161	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,2,4-Trimethylbenzene	DCB	Ave	36504 580572	121648 7231176	1206077	221512	3557690	0.300 5.00	1.00 60.0	10.0	2.00	30.0
sec-Butylbenzene	DCB	Ave	10292 177196	35553 2264838	365299	69410	1080246	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,3-Dichlorobenzene	DCB	Ave	17375 276824	59259 3660427	591386	108495	1735503	0.300 5.00	1.00 60.0	10.0	2.00	30.0
p-Isopropyltoluene	DCB	Ave	42337 767309	156306 9779012	1595405	292735	4713028	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,4-Dichlorobenzene	DCB	Ave	25137 443692	90470 5532730	897375	173354	2812786	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,2,3-Trimethylbenzene	DCB	Ave	3206272	519679	111761 6472065	1016440	209412	30.0	5.00	1.00 60.0	10.0	2.00
n-Butylbenzene	DCB	Ave	49540 798058	162753 10123491	1632647	295629	4897561	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,2-Dichlorobenzene	DCB	Ave	16946 298057	60837 3820213	626018	117567	1890736	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,2-Dibromo-3-Chloropropane	DCB	Ave	1451 27832	5677 349881	61145	11040	184811	0.300 5.00	1.00 60.0	10.0	2.00	30.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-69589-1 Analy Batch No.: 279265

SDG No.: _____

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53 (mm)) Heated Purge: (Y/N) N

Calibration Start Date: 05/28/2015 00:18 Calibration End Date: 05/28/2015 05:10 Calibration ID: 22417

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8	LVL 9	LVL 10	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10
			LVL 11	LVL 12	LVL 13		LVL 11	LVL 12	LVL 13			
1,2,4-Trichlorobenzene	DCB	Ave	10076 201768	40657 2675409	429478	79388	1320265	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Hexachlorobutadiene	DCB	Ave	11646 209088	43213 2743229	438309	81678	1302417	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Naphthalene	DCB	Ave	13238 221754	45982 2893523	486464	88140	1488412	0.300 5.00	1.00 60.0	10.0	2.00	30.0
1,2,3-Trichlorobenzene	DCB	Ave	8851 158675	32643 2079040	333902	56420	1050261	0.300 5.00	1.00 60.0	10.0	2.00	30.0
Dibromofluoromethane (Surr)	FB	Ave	1592725	266180	62835 3238689	546393	118288	30.0	5.00	1.00 60.0	10.0	2.00
1,2-Dichloroethane-d4 (Surr)	FB	Ave	881719	149069	33456 1797526	308839	66325	30.0	5.00	1.00 60.0	10.0	2.00
Toluene-d8 (Surr)	CBZ	Ave	3504937	582345	134275 7087877	1177961	255016	30.0	5.00	1.00 60.0	10.0	2.00
4-Bromofluorobenzene (Surr)	DCB	Ave	1920918	317561	81659 3915034	618356	142343	30.0	5.00	1.00 60.0	10.0	2.00

Curve Type Legend:

<p>Ave = Average ISTD Lin1 = Linear 1/conc ISTD Lin2 = Linear 1/conc^2 ISTD</p>

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2949.D
 Lims ID: ic
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 28-May-2015 00:18:30 ALS Bottle#: 3 Worklist Smp#: 9
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: BERGERB Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub99
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 08:03:28 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK030

First Level Reviewer: moanm

Date: 02-Jun-2015 08:03:27

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.994	3.974	0.020	97	193515	250.0	250.0	
* 2 Fluorobenzene	96	6.762	6.759	0.003	97	1055741	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.115	11.094	0.021	91	255283	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.109	14.106	0.003	98	371746	12.5	12.5	
28 Dichlorodifluoromethane	85	2.166	2.164	0.002	95	17035	0.3000	0.4280	
30 Chloromethane	50	2.253	2.269	-0.016	95	11373	0.3000	0.3460	
31 Butadiene	54	2.375	2.373	0.002	0	9511	NC	NC	
32 Vinyl chloride	62	2.375	2.390	-0.015	87	11464	0.3000	0.3566	
35 Bromomethane	94	2.671	2.669	0.002	93	11483	0.3000	0.4304	
36 Chloroethane	64	2.758	2.756	0.002	97	8427	0.3000	0.4312	
37 Dichlorofluoromethane	67	2.932	2.930	0.002	96	30915	0.3000	0.4361	
38 Trichlorofluoromethane	101	2.985	2.982	0.003	98	22025	0.3000	0.3473	
40 Ethyl ether	59	3.228	3.226	0.002	88	5076	0.3000	0.3030	
44 Acrolein	56		3.365				ND	ND	
45 1,1-Dichloroethene	96	3.489	3.470	0.019	93	9301	0.3000	0.2950	
46 1,1,2-Trichloro-1,2,2-trif	151	3.507	3.487	0.020	93	11802	0.3000	0.2746	
47 Acetone	43	3.507	3.505	0.002	95	12647	1.20	3.85	
48 Iodomethane	142	3.646	3.644	0.002	98	21695	0.3000	0.3057	
50 Carbon disulfide	76	3.733	3.731	0.002	96	41433	0.3000	0.3408	
52 3-Chloro-1-propene	41	3.820	3.818	0.002	82	22629	0.3000	0.3092	
53 Methyl acetate	43	3.838	3.818	0.020	77	13933	1.50	1.31	
54 Methylene Chloride	84	3.960	3.957	0.003	97	20589	0.3000	0.2991	
55 2-Methyl-2-propanol	59	4.099	4.062	0.037	92	6971	3.00	3.17	
57 Acrylonitrile	53	4.203	4.201	0.002	39	7644	3.00	2.78	
58 trans-1,2-Dichloroethene	96	4.238	4.236	0.002	95	11159	0.3000	0.3146	
56 Methyl tert-butyl ether	73	4.238	4.236	0.002	91	19196	0.3000	0.3194	
59 Hexane	57	4.499	4.514	-0.015	91	18384	0.3000	0.2685	
60 1,1-Dichloroethane	63	4.691	4.688	0.003	95	23998	0.3000	0.3205	
61 Vinyl acetate	43	4.743	4.723	0.020	97	26188	0.6000	0.5647	
65 cis-1,2-Dichloroethene	96	5.352	5.367	-0.015	88	10712	0.3000	0.2997	
67 2-Butanone (MEK)	43		5.367				ND	ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	5.317	5.385	-0.068	80	62959	0.3000	0.2386	
71 sec-Butyl Alcohol	45	5.596	5.576	0.020	91	15358	9.00	11.1	
73 Chlorobromomethane	128	5.666	5.663	0.003	92	4564	0.3000	0.2910	
74 Tetrahydrofuran	42	5.735	5.716	0.019	41	4474	0.6000	1.03	
75 Chloroform	83	5.735	5.733	0.002	96	20454	0.3000	0.2925	
76 1,1,1-Trichloroethane	97	5.979	5.977	0.002	97	19475	0.3000	0.2916	
77 Cyclohexane	56	6.049	6.046	0.003	91	21245	0.3000	0.2883	
78 1,1-Dichloropropene	75	6.171	6.168	0.003	90	20169	0.3000	0.3369	
79 Carbon tetrachloride	117	6.188	6.186	0.002	94	17528	0.3000	0.2823	
80 Isobutyl alcohol	41		6.290				ND	ND	
81 Benzene	78	6.432	6.429	0.003	97	32434	0.3000	0.2933	
82 1,2-Dichloroethane	62		6.447				ND	ND	
84 n-Heptane	43	6.728	6.725	0.003	96	27451	0.3000	0.2803	
86 Trichloroethene	95	7.233	7.230	0.003	94	12844	0.3000	0.2856	
88 2-Pentanone	43	7.494	7.474	0.020	63	22323	1.20	1.33	
89 Methylcyclohexane	55	7.494	7.491	0.003	85	16660	0.3000	0.2538	
90 1,2-Dichloropropane	63	7.528	7.526	0.002	62	12750	0.3000	0.2886	
92 Dibromomethane	93	7.703	7.700	0.003	90	7097	0.3000	0.3223	
93 1,4-Dioxane	88		7.718				ND	ND	
94 Dichlorobromomethane	83	7.894	7.892	0.002	97	18101	0.3000	0.2815	
96 2-Chloroethyl vinyl ether	63		8.292				ND	ND	
97 cis-1,3-Dichloropropene	75	8.503	8.501	0.002	89	16389	0.3000	0.2725	
98 4-Methyl-2-pentanone (MIBK)	43	8.730	8.710	0.020	96	34884	1.20	1.61	
99 Toluene	91	8.973	8.971	0.002	98	38452	0.3000	0.3033	
100 trans-1,3-Dichloropropene	75		9.285				ND	ND	
101 Ethyl methacrylate	69	9.409	9.406	0.003	52	8665	0.3000	0.2347	
102 1,1,2-Trichloroethane	97	9.548	9.546	0.002	39	11674	0.3000	0.4595	
103 Tetrachloroethene	164	9.774	9.772	0.002	94	10578	0.3000	0.2547	
104 1,3-Dichloropropane	76	9.792	9.789	0.003	76	12859	0.3000	0.2747	
105 2-Hexanone	43	9.948	9.929	0.019	95	20301	1.20	1.71	
108 Chlorodibromomethane	129	10.157	10.155	0.002	90	12707	0.3000	0.2789	
109 Ethylene Dibromide	107	10.349	10.329	0.020	96	8631	0.3000	0.2688	
110 1-Chlorohexane	91	11.115	11.113	0.002	52	21495	0.3000	0.3064	
111 Chlorobenzene	112	11.150	11.147	0.003	86	25956	0.3000	0.2835	
112 1,1,1,2-Tetrachloroethane	131	11.272	11.287	-0.015	73	11938	0.3000	0.2701	
113 Ethylbenzene	106	11.324	11.322	0.002	98	12392	0.3000	0.2655	
114 m-Xylene & p-Xylene	106	11.515	11.496	0.019	97	17023	0.3000	0.2683	
115 o-Xylene	106	12.072	12.070	0.002	97	14418	0.3000	0.2590	
116 Styrene	104	12.090	12.088	0.002	95	22003	0.3000	0.2444	
117 Bromoform	173	12.334	12.349	-0.015	88	6045	0.3000	0.2459	
118 Isopropylbenzene	105	12.560	12.558	0.002	96	48827	0.3000	0.3065	
120 Cyclohexanone	55	12.699	12.697	0.002	88	8548	12.0	16.8	
122 Bromobenzene	156	12.943	12.941	0.002	92	10185	0.3000	0.2773	
121 1,1,2,2-Tetrachloroethane	83	12.960	12.958	0.002	67	14087	0.3000	0.4249	
123 1,2,3-Trichloropropane	110	12.995	12.993	0.002	79	2701	0.3000	0.3484	
124 trans-1,4-Dichloro-2-buten	53	13.030	13.028	0.002	59	1719	0.3000	0.1976	
125 N-Propylbenzene	120	13.082	13.080	0.002	99	11808	0.3000	0.3028	
126 2-Chlorotoluene	126	13.187	13.184	0.003	96	9287	0.3000	0.3074	
127 1,3,5-Trimethylbenzene	105	13.291	13.289	0.002	94	38588	0.3000	0.3202	
128 4-Chlorotoluene	126	13.326	13.306	0.020	97	11247	0.3000	0.2880	
129 tert-Butylbenzene	119	13.674	13.672	0.002	95	41418	0.3000	0.3169	
130 1,2,4-Trimethylbenzene	105	13.726	13.724	0.002	95	36504	0.3000	0.3189	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	13.918	13.916	0.002	94	10292	0.3000	0.2983	
132 1,3-Dichlorobenzene	146	14.040	14.037	0.003	86	17375	0.3000	0.3114	
133 4-Isopropyltoluene	119	14.074	14.072	0.002	97	42337	0.3000	0.2853	
134 1,4-Dichlorobenzene	146	14.127	14.142	-0.015	81	25137	0.3000	0.2916	
137 n-Butylbenzene	91	14.510	14.507	0.003	98	49540	0.3000	0.3179	
138 1,2-Dichlorobenzene	146	14.527	14.542	-0.015	95	16946	0.3000	0.2893	
139 1,2-Dibromo-3-Chloropropan	157	15.293	15.326	-0.033	68	1451	0.3000	0.2654	
144 1,2,3-Trichlorobenzene	180	16.529	16.074	0.455	45	8851	0.3000	0.2284	a
142 Hexachlorobutadiene	225	16.233	16.231	0.002	94	11646	0.3000	0.2840	
143 Naphthalene	128	16.303	16.301	0.002	92	13238	0.3000	0.2957	
141 1,2,4-Trichlorobenzene	180	16.077	16.527	-0.450	52	10076	0.3000	0.3192	a
S 151 1,2-Dichloroethene, Total	96				0		0.6000	0.6143	
S 145 Trihalomethanes, Total	1				0		1.20	1.10	
S 146 Xylenes, Total (URS)	1				0		0.6000	0.5273	
S 147 Total BTEX	1				0			1.39	
S 148 1,3-Dichloropropene, Total	1				0		0.6000	0.2725	
S 149 1,2-Dichloroethene, Total	1				0		0.6000	0.6143	
S 150 Xylenes, Total	106				0		0.6000	0.5273	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Review Flags

a - User Assigned ID

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Main A_00022	Amount Added: 0.15	Units: uL
MV-Gas/Ket A_00033	Amount Added: 0.15	Units: uL
MV-2cleve+AVA_00009	Amount Added: 0.15	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2949.D

Injection Date: 28-May-2015 00:18:30

Instrument ID: VMS_H

Operator ID: BERGERB

Lims ID: ic

Worklist Smp#: 9

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

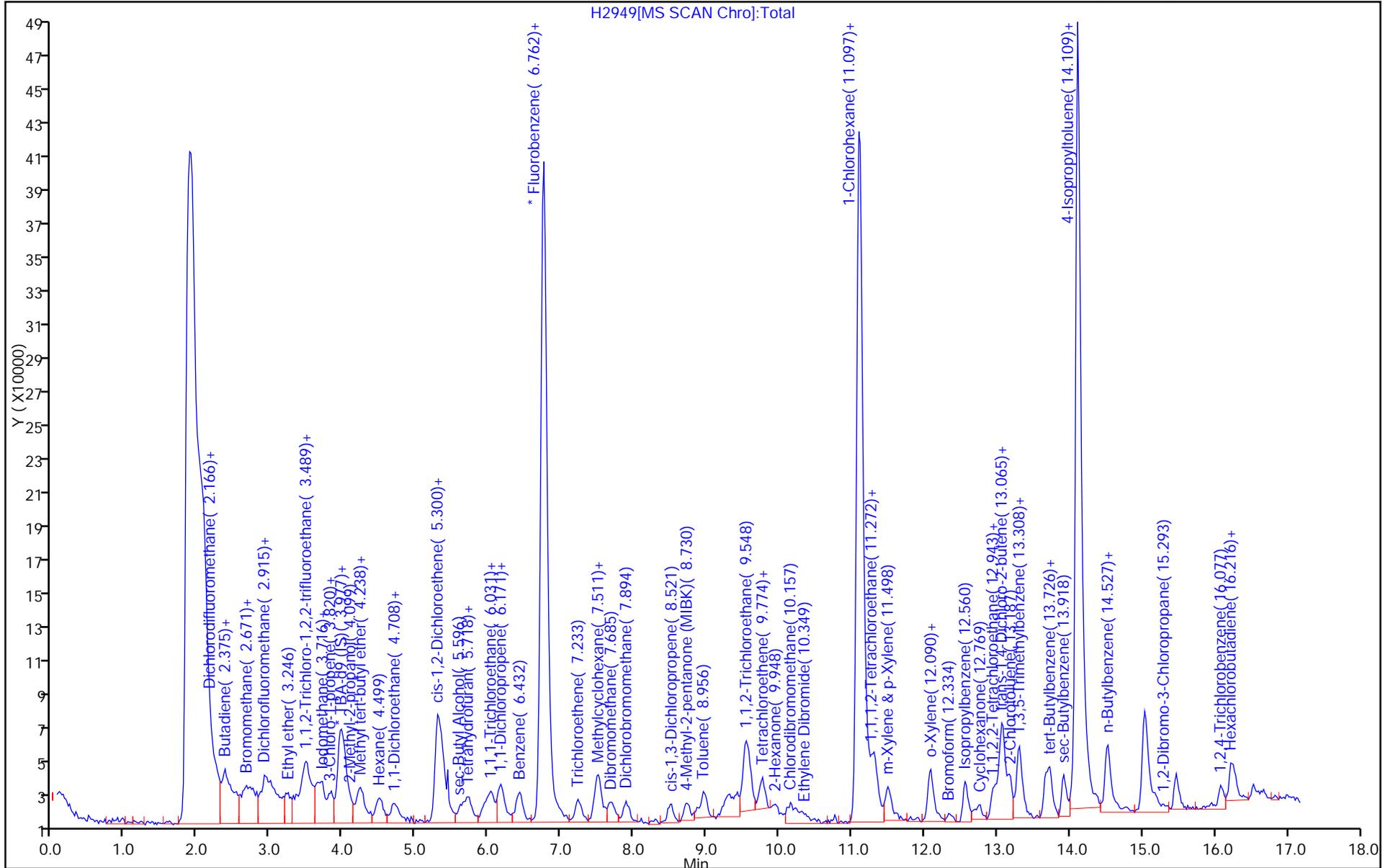
ALS Bottle#: 3

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



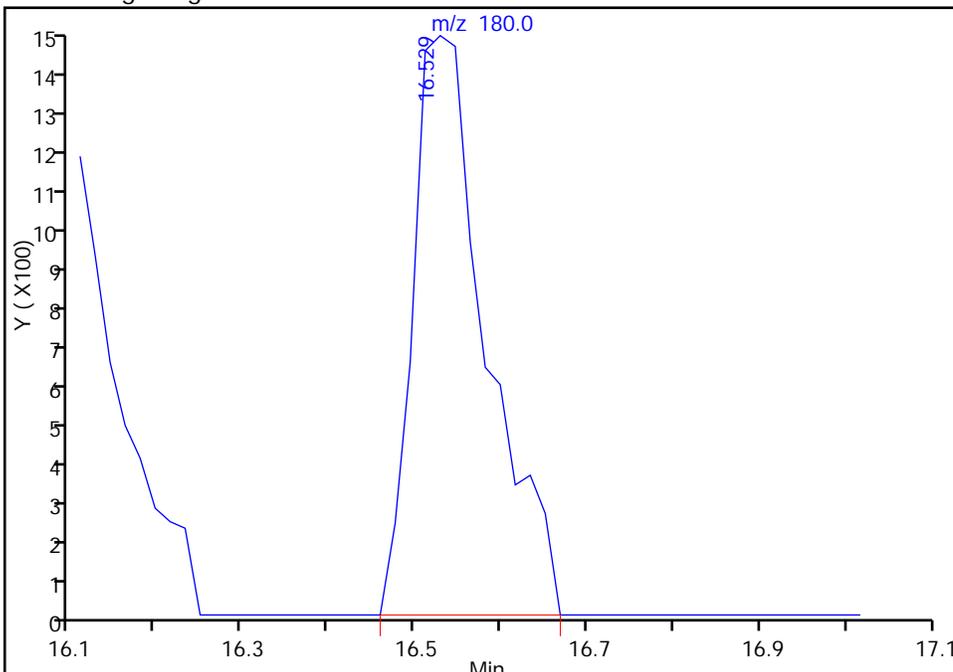
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2949.D
Injection Date: 28-May-2015 00:18:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 3 Worklist Smp#: 9
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

141 1,2,4-Trichlorobenzene, CAS: 120-82-1

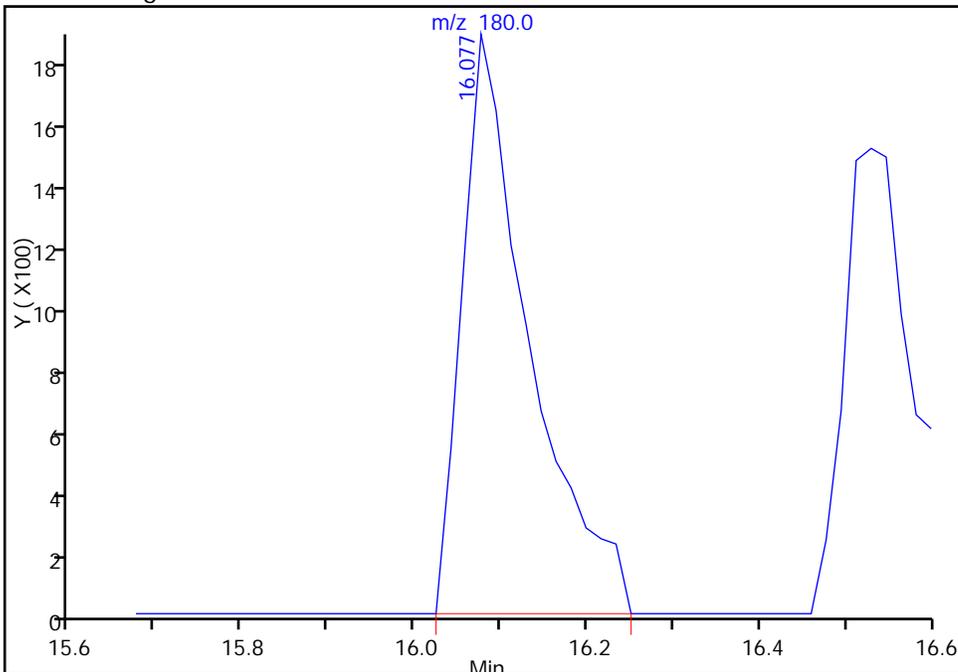
RT: 16.53
Area: 8851
Amount: 0.285656
Amount Units: ug/l

Processing Integration Results



RT: 16.08
Area: 10076
Amount: 0.319183
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:03:27
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

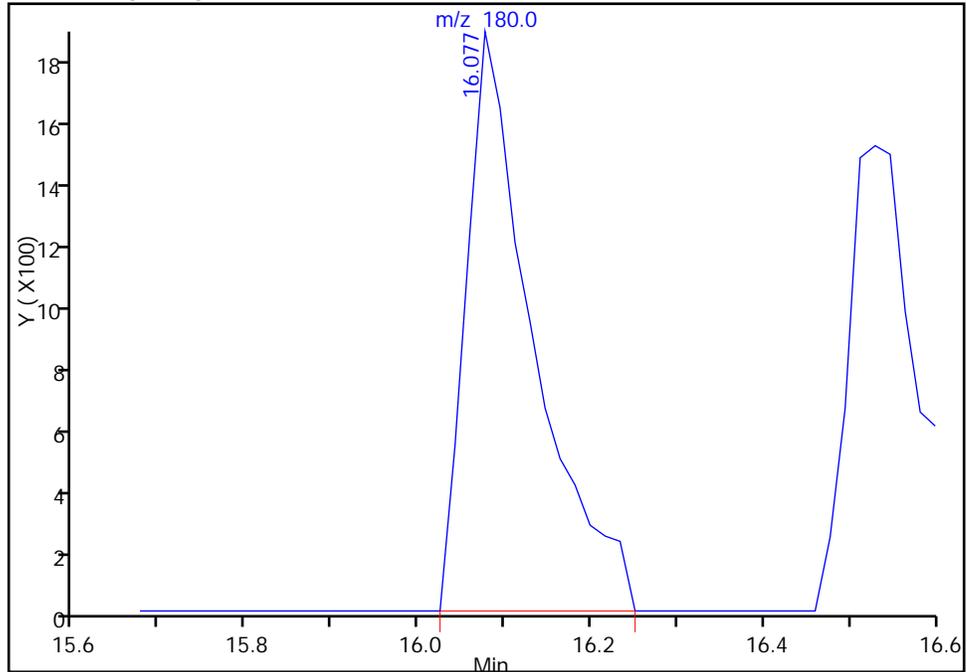
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2949.D
Injection Date: 28-May-2015 00:18:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 3 Worklist Smp#: 9
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

144 1,2,3-Trichlorobenzene, CAS: 87-61-6

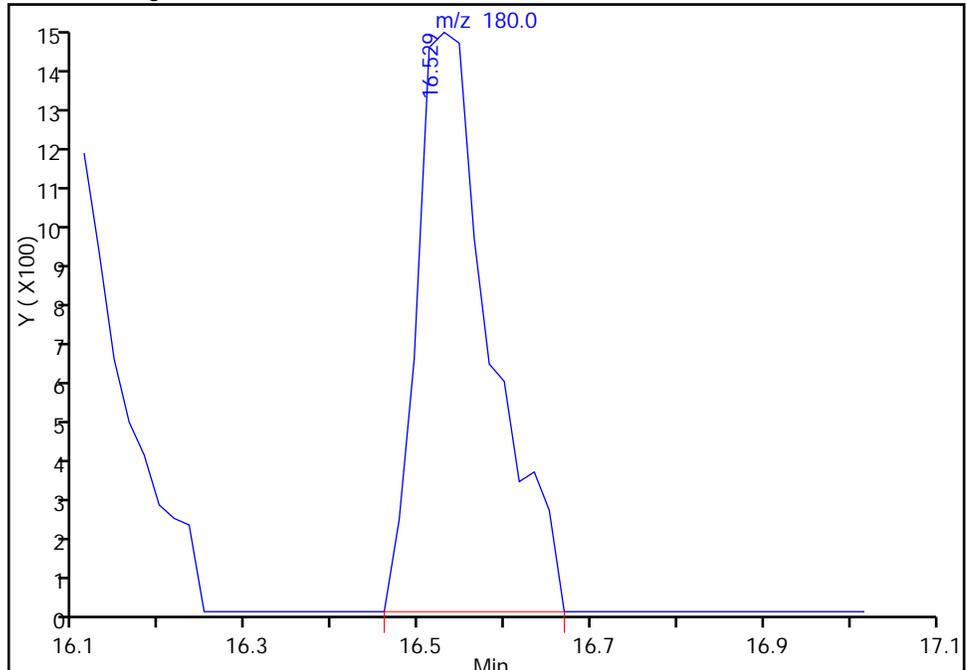
RT: 16.08
Area: 10076
Amount: 0.256125
Amount Units: ug/l

Processing Integration Results



RT: 16.53
Area: 8851
Amount: 0.228373
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:03:27
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2950.D
 Lims ID: ic
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 28-May-2015 00:40:30 ALS Bottle#: 4 Worklist Smp#: 10
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: BERGERB Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub99
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 08:03:43 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK030

First Level Reviewer: wickhamt

Date: 28-May-2015 06:21:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.993	3.974	0.019	97	193113	250.0	250.0	
* 2 Fluorobenzene	96	6.761	6.759	0.002	97	1059430	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.096	11.094	0.002	93	237965	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.108	14.106	0.002	98	377864	12.5	12.5	
28 Dichlorodifluoromethane	85	2.148	2.164	-0.016	98	42175	1.00	0.9145	
30 Chloromethane	50	2.252	2.269	-0.017	99	30623	1.00	0.9283	M
31 Butadiene	54	2.374	2.373	0.001	0	23161	NC	NC	
32 Vinyl chloride	62	2.391	2.390	0.001	89	29166	1.00	0.9040	
35 Bromomethane	94	2.670	2.669	0.001	90	27242	1.00	1.02	
36 Chloroethane	64	2.757	2.756	0.001	97	19936	1.00	1.02	
37 Dichlorofluoromethane	67	2.931	2.930	0.001	98	65058	1.00	0.9145	
38 Trichlorofluoromethane	101	2.983	2.982	0.001	98	56652	1.00	0.8902	
40 Ethyl ether	59	3.227	3.226	0.001	94	17097	1.00	1.02	
44 Acrolein	56	3.366	3.365	0.001	94	12221	10.0	10.6	
45 1,1-Dichloroethene	96	3.471	3.470	0.001	94	33271	1.00	1.05	
46 1,1,2-Trichloro-1,2,2-trif	151	3.488	3.487	0.001	95	44325	1.00	1.03	
47 Acetone	43	3.505	3.505	0.000	46	16671	4.00	5.06	
48 Iodomethane	142	3.645	3.644	0.001	98	73821	1.00	1.04	
50 Carbon disulfide	76	3.732	3.731	0.001	95	123216	1.00	1.01	
52 3-Chloro-1-propene	41	3.819	3.818	0.001	84	77645	1.00	1.06	
53 Methyl acetate	43	3.819	3.818	0.001	73	59188	5.00	5.55	
54 Methylene Chloride	84	3.941	3.957	-0.016	98	39793	1.00	1.01	
55 2-Methyl-2-propanol	59	4.080	4.062	0.018	95	10757	10.0	7.40	
57 Acrylonitrile	53	4.202	4.201	0.001	54	28348	10.0	10.3	
58 trans-1,2-Dichloroethene	96	4.237	4.236	0.001	94	35154	1.00	0.9876	
56 Methyl tert-butyl ether	73	4.237	4.236	0.001	84	62101	1.00	1.03	
59 Hexane	57	4.498	4.514	-0.016	95	64190	1.00	1.01	
60 1,1-Dichloroethane	63	4.689	4.688	0.001	96	79883	1.00	1.06	
61 Vinyl acetate	43	4.724	4.723	0.001	96	84948	2.00	1.83	
65 cis-1,2-Dichloroethene	96	5.351	5.367	-0.016	87	37013	1.00	1.03	
67 2-Butanone (MEK)	43	5.368	5.367	0.001	45	24233	4.00	3.99	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	5.368	5.385	-0.017	76	111289	1.00	1.02	
71 sec-Butyl Alcohol	45	5.595	5.576	0.019	97	44351	30.0	32.1	
73 Chlorobromomethane	128	5.647	5.663	-0.016	90	15065	1.00	0.9571	
74 Tetrahydrofuran	42	5.716	5.716	0.000	40	9425	2.00	2.15	
75 Chloroform	83	5.716	5.733	-0.017	95	75009	1.00	1.07	
76 1,1,1-Trichloroethane	97	5.978	5.977	0.001	96	69076	1.00	1.03	
77 Cyclohexane	56	6.047	6.046	0.001	92	74464	1.00	1.01	
78 1,1-Dichloropropene	75	6.152	6.168	-0.016	90	61407	1.00	1.02	
79 Carbon tetrachloride	117	6.187	6.186	0.001	96	63160	1.00	1.01	
80 Isobutyl alcohol	41	6.291	6.290	0.001	90	13096	25.0	27.0	
81 Benzene	78	6.413	6.429	-0.016	97	109532	1.00	0.9869	
82 1,2-Dichloroethane	62	6.448	6.447	0.001	94	34787	1.00	1.04	
84 n-Heptane	43	6.709	6.725	-0.016	97	102379	1.00	1.04	
86 Trichloroethene	95	7.231	7.230	0.001	97	44827	1.00	0.99	
88 2-Pentanone	43	7.475	7.474	0.001	95	65366	4.00	3.88	
89 Methylcyclohexane	55	7.492	7.491	0.001	92	69997	1.00	1.06	
90 1,2-Dichloropropane	63	7.527	7.526	0.001	95	47827	1.00	1.08	
92 Dibromomethane	93	7.684	7.700	-0.016	94	22545	1.00	1.02	
93 1,4-Dioxane	88	7.736	7.718	0.018	30	1190	20.0	20.9	
94 Dichlorobromomethane	83	7.893	7.892	0.001	98	64456	1.00	1.00	
96 2-Chloroethyl vinyl ether	63	8.293	8.292	0.001	82	8401	1.00	1.06	
97 cis-1,3-Dichloropropene	75	8.502	8.501	0.001	91	55629	1.00	0.99	
98 4-Methyl-2-pentanone (MIBK)	43	8.728	8.710	0.018	98	72563	4.00	3.27	
99 Toluene	91	8.972	8.971	0.001	97	132622	1.00	1.04	
100 trans-1,3-Dichloropropene	75	9.285	9.285	0.000	94	41101	1.00	1.01	
101 Ethyl methacrylate	69	9.407	9.406	0.001	95	38403	1.00	1.12	
102 1,1,2-Trichloroethane	97	9.547	9.546	0.001	54	28973	1.00	1.14	
103 Tetrachloroethene	164	9.756	9.772	-0.016	94	39068	1.00	1.01	
104 1,3-Dichloropropane	76	9.790	9.789	0.001	95	47124	1.00	1.08	
105 2-Hexanone	43	9.912	9.929	-0.017	96	43268	4.00	3.23	
108 Chlorodibromomethane	129	10.139	10.155	-0.016	90	43268	1.00	1.02	
109 Ethylene Dibromide	107	10.330	10.329	0.001	99	29215	1.00	0.9759	
110 1-Chlorohexane	91	11.113	11.113	0.000	81	66824	1.00	1.02	
111 Chlorobenzene	112	11.148	11.147	0.001	88	85583	1.00	1.00	
112 1,1,1,2-Tetrachloroethane	131	11.288	11.287	0.001	81	41387	1.00	1.00	
113 Ethylbenzene	106	11.322	11.322	0.000	99	43467	1.00	1.00	
114 m-Xylene & p-Xylene	106	11.496	11.496	0.000	97	62391	1.00	1.05	
115 o-Xylene	106	12.071	12.070	0.001	98	51986	1.00	1.00	
116 Styrene	104	12.088	12.088	0.000	94	88179	1.00	1.05	
117 Bromoform	173	12.350	12.349	0.001	94	21881	1.00	0.9548	
118 Isopropylbenzene	105	12.558	12.558	0.000	97	171044	1.00	1.06	
120 Cyclohexanone	55	12.680	12.697	-0.017	94	15703	40.0	31.4	
122 Bromobenzene	156	12.941	12.941	0.000	92	38258	1.00	1.02	
121 1,1,2,2-Tetrachloroethane	83	12.959	12.958	0.001	71	38437	1.00	1.14	
123 1,2,3-Trichloropropane	110	13.011	12.993	0.018	79	8533	1.00	1.08	
124 trans-1,4-Dichloro-2-buten	53	13.029	13.028	0.000	63	10962	1.00	1.24	
125 N-Propylbenzene	120	13.081	13.080	0.001	99	41134	1.00	1.04	
126 2-Chlorotoluene	126	13.168	13.184	-0.016	97	32135	1.00	1.05	
127 1,3,5-Trimethylbenzene	105	13.290	13.289	0.001	94	124917	1.00	1.02	
128 4-Chlorotoluene	126	13.307	13.306	0.001	98	41938	1.00	1.06	
129 tert-Butylbenzene	119	13.673	13.672	0.001	95	139500	1.00	1.05	
130 1,2,4-Trimethylbenzene	105	13.725	13.724	0.001	96	121648	1.00	1.05	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	13.916	13.916	0.000	95	35553	1.00	1.01	
132 1,3-Dichlorobenzene	146	14.038	14.037	0.001	97	59259	1.00	1.04	
133 4-Isopropyltoluene	119	14.073	14.072	0.001	98	156306	1.00	1.04	
134 1,4-Dichlorobenzene	146	14.125	14.142	-0.017	92	90470	1.00	1.03	
137 n-Butylbenzene	91	14.508	14.507	0.001	99	162753	1.00	1.03	
138 1,2-Dichlorobenzene	146	14.526	14.542	-0.016	95	60837	1.00	1.02	
139 1,2-Dibromo-3-Chloropropan	157	15.327	15.326	0.001	74	5677	1.00	1.02	
144 1,2,3-Trichlorobenzene	180	16.528	16.074	0.454	84	32643	1.00	0.8534	a
142 Hexachlorobutadiene	225	16.232	16.231	0.001	97	43213	1.00	1.04	
143 Naphthalene	128	16.302	16.301	0.001	97	45982	1.00	1.01	
141 1,2,4-Trichlorobenzene	180	16.075	16.527	-0.452	85	40657	1.00	1.22	a
S 151 1,2-Dichloroethene, Total	96				0		2.00	2.02	
S 145 Trihalomethanes, Total	1				0		4.00	4.04	
S 146 Xylenes, Total (URS)	1				0		2.00	2.06	
S 147 Total BTEX	1				0			5.09	
S 148 1,3-Dichloropropene, Total	1				0		2.00	2.00	
S 149 1,2-Dichloroethene, Total	1				0		2.00	2.02	
S 150 Xylenes, Total	106				0		2.00	2.06	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Main A_00022	Amount Added: 0.50	Units: uL
MV-Gas/Ket A_00033	Amount Added: 0.50	Units: uL
MV-2cleve+AVA_00009	Amount Added: 0.50	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2950.D

Injection Date: 28-May-2015 00:40:30

Instrument ID: VMS_H

Operator ID: BERGERB

Lims ID: ic

Worklist Smp#: 10

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

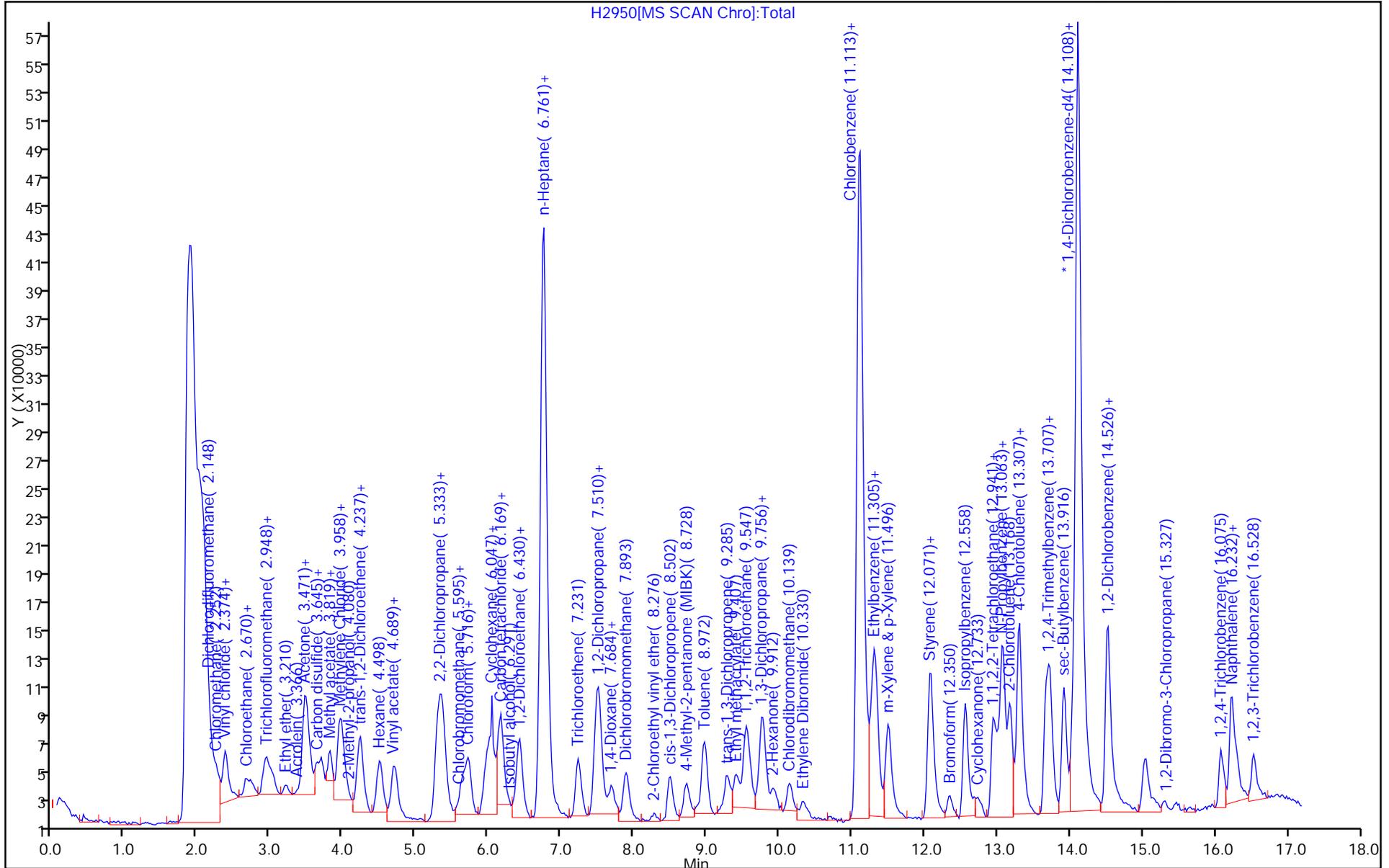
ALS Bottle#: 4

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



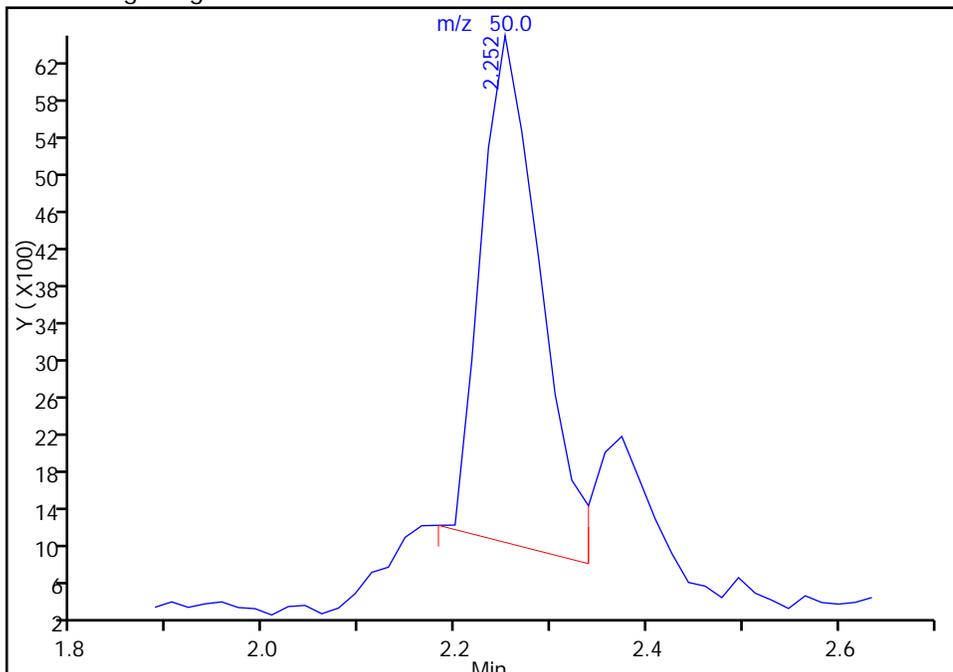
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2950.D
Injection Date: 28-May-2015 00:40:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 4 Worklist Smp#: 10
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

30 Chloromethane, CAS: 74-87-3

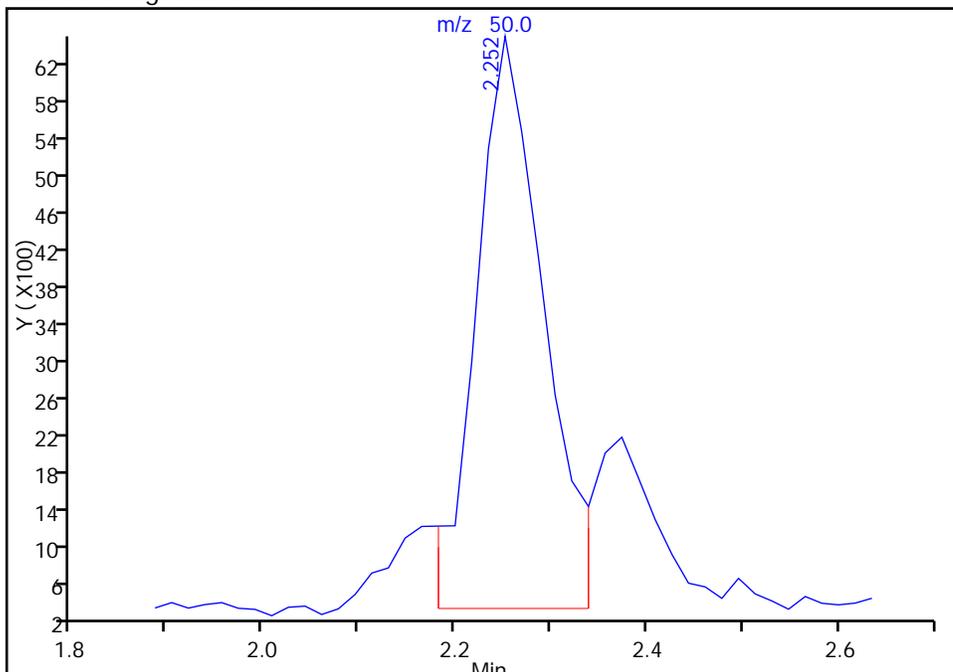
RT: 2.25
Area: 23488
Amount: 0.764324
Amount Units: ug/l

Processing Integration Results



RT: 2.25
Area: 30623
Amount: 0.928269
Amount Units: ug/l

Manual Integration Results



Reviewer: wickhamt, 28-May-2015 06:21:14
Audit Action: Assigned New Baseline
Audit Reason: Baseline

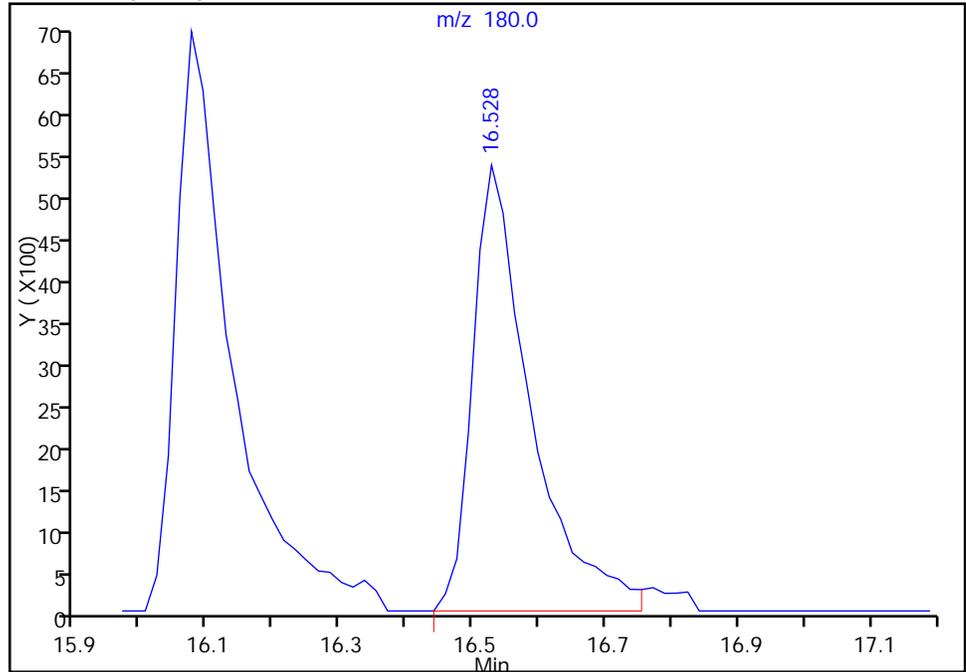
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2950.D
Injection Date: 28-May-2015 00:40:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 4 Worklist Smp#: 10
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

141 1,2,4-Trichlorobenzene, CAS: 120-82-1

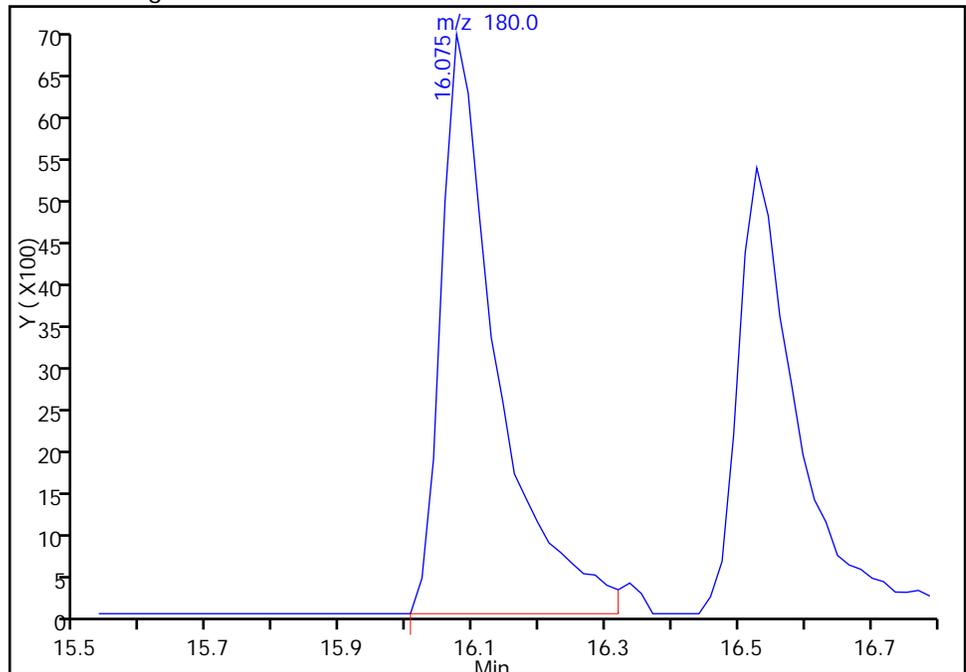
RT: 16.53
Area: 32643
Amount: 1.017307
Amount Units: ug/l

Processing Integration Results



RT: 16.08
Area: 40657
Amount: 1.223410
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:03:43
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

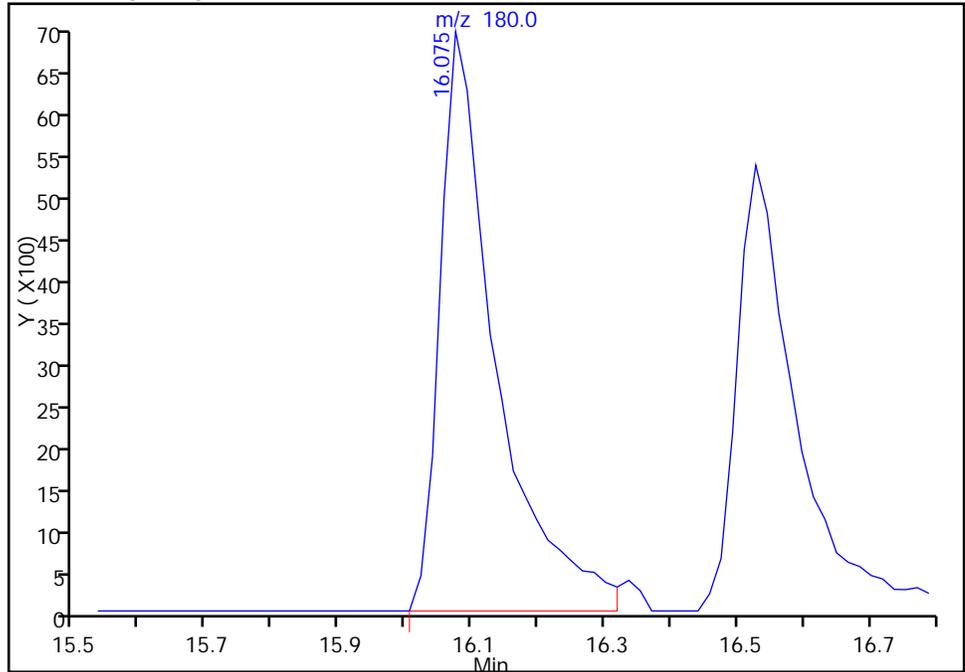
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2950.D
Injection Date: 28-May-2015 00:40:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 4 Worklist Smp#: 10
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

144 1,2,3-Trichlorobenzene, CAS: 87-61-6

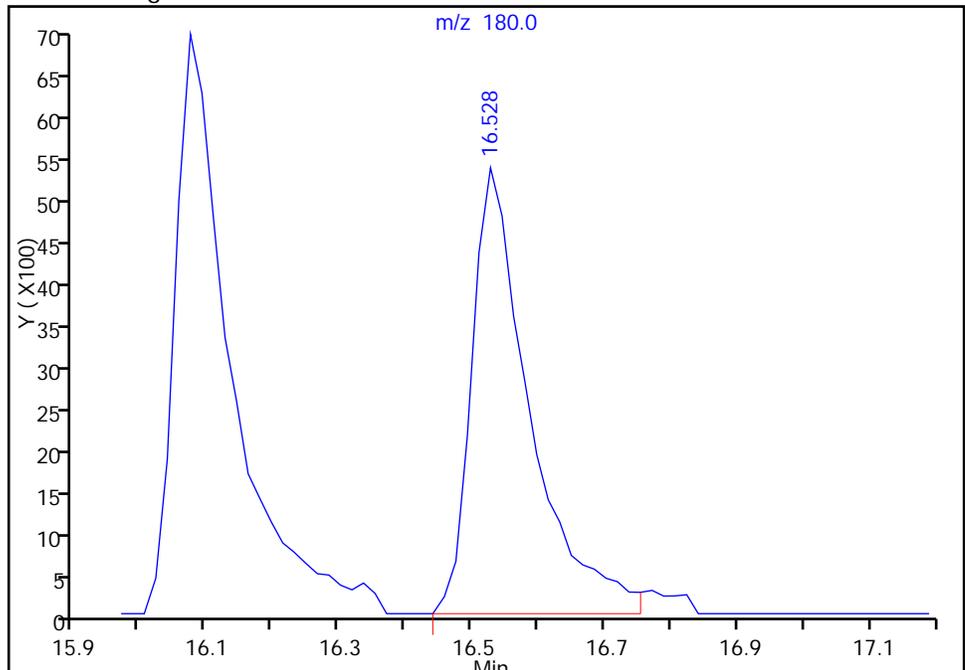
RT: 16.08
Area: 40657
Amount: 1.032043
Amount Units: ug/l

Processing Integration Results



RT: 16.53
Area: 32643
Amount: 0.853416
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:03:43
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2951.D
 Lims ID: ic
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 28-May-2015 01:03:30 ALS Bottle#: 5 Worklist Smp#: 11
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: BERGERB Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub99
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 08:04:02 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK030

First Level Reviewer: wickhamt Date: 28-May-2015 06:22:57

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.971	3.974	-0.003	97	188279	250.0	250.0	
* 2 Fluorobenzene	96	6.756	6.759	-0.003	96	1027041	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.109	11.094	0.015	94	231298	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.120	14.106	0.014	97	367583	12.5	12.5	
28 Dichlorodifluoromethane	85	2.143	2.164	-0.021	97	61856	2.00	1.33	
30 Chloromethane	50	2.247	2.269	-0.022	98	53286	2.00	1.67	M
31 Butadiene	54	2.369	2.373	-0.004	0	36913	NC	NC	
32 Vinyl chloride	62	2.386	2.390	-0.004	85	47784	2.00	1.53	
35 Bromomethane	94	2.665	2.669	-0.004	91	43358	2.00	1.67	
36 Chloroethane	64	2.735	2.756	-0.021	100	31142	2.00	1.64	
37 Dichlorofluoromethane	67	2.926	2.930	-0.004	97	111136	2.00	1.61	
38 Trichlorofluoromethane	101	2.996	2.982	0.014	99	89150	2.00	1.45	
40 Ethyl ether	59	3.222	3.226	-0.004	95	32923	2.00	2.02	
44 Acrolein	56	3.361	3.365	-0.004	98	21672	20.0	19.3	
45 1,1-Dichloroethene	96	3.466	3.470	-0.004	94	58222	2.00	1.90	
46 1,1,2-Trichloro-1,2,2-trif	151	3.483	3.487	-0.004	97	79903	2.00	1.91	
47 Acetone	43	3.501	3.505	-0.004	39	25083	8.00	7.85	
48 Iodomethane	142	3.640	3.644	-0.004	100	131594	2.00	1.91	
50 Carbon disulfide	76	3.709	3.731	-0.022	96	214216	2.00	1.81	
52 3-Chloro-1-propene	41	3.814	3.818	-0.004	85	137857	2.00	1.94	
53 Methyl acetate	43	3.814	3.818	-0.004	78	101327	10.0	9.79	
54 Methylene Chloride	84	3.936	3.957	-0.021	97	62909	2.00	1.95	
55 2-Methyl-2-propanol	59	4.075	4.062	0.013	91	25764	20.0	24.8	
57 Acrylonitrile	53	4.197	4.201	-0.004	97	53920	20.0	20.1	
58 trans-1,2-Dichloroethene	96	4.232	4.236	-0.004	94	67262	2.00	1.95	
56 Methyl tert-butyl ether	73	4.232	4.236	-0.004	91	113032	2.00	1.93	
59 Hexane	57	4.493	4.514	-0.021	94	113407	2.00	1.83	
60 1,1-Dichloroethane	63	4.684	4.688	-0.004	96	136484	2.00	1.87	
61 Vinyl acetate	43	4.719	4.723	-0.004	96	169021	4.00	3.75	
65 cis-1,2-Dichloroethene	96	5.346	5.367	-0.021	88	67321	2.00	1.94	
67 2-Butanone (MEK)	43	5.363	5.367	-0.004	46	37612	8.00	6.38	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	5.363	5.385	-0.022	92	161477	2.00	1.91	
71 sec-Butyl Alcohol	45	5.572	5.576	-0.004	96	81308	60.0	60.3	
73 Chlorobromomethane	128	5.642	5.663	-0.021	90	30589	2.00	2.00	
74 Tetrahydrofuran	42	5.712	5.716	-0.004	41	16390	4.00	3.86	
75 Chloroform	83	5.729	5.733	-0.004	96	133676	2.00	1.96	
76 1,1,1-Trichloroethane	97	5.973	5.977	-0.004	97	122948	2.00	1.89	
77 Cyclohexane	56	6.042	6.046	-0.004	92	137225	2.00	1.91	
78 1,1-Dichloropropene	75	6.147	6.168	-0.021	92	109356	2.00	1.88	
79 Carbon tetrachloride	117	6.182	6.186	-0.004	97	114248	2.00	1.89	
80 Isobutyl alcohol	41	6.304	6.290	0.014	93	22070	50.0	46.7	
81 Benzene	78	6.408	6.429	-0.021	97	210215	2.00	1.95	
82 1,2-Dichloroethane	62	6.443	6.447	-0.004	96	65169	2.00	2.00	
84 n-Heptane	43	6.721	6.725	-0.004	97	176712	2.00	1.85	
86 Trichloroethene	95	7.226	7.230	-0.004	97	82244	2.00	1.88	
88 2-Pentanone	43	7.470	7.474	-0.004	96	124028	8.00	7.59	
89 Methylcyclohexane	55	7.487	7.491	-0.004	90	121641	2.00	1.90	
90 1,2-Dichloropropane	63	7.522	7.526	-0.004	96	88743	2.00	2.06	
92 Dibromomethane	93	7.696	7.700	-0.004	91	42931	2.00	2.00	
93 1,4-Dioxane	88	7.714	7.718	-0.004	29	3158	40.0	36.4	
94 Dichlorobromomethane	83	7.888	7.892	-0.004	98	126497	2.00	2.02	
96 2-Chloroethyl vinyl ether	63	8.288	8.292	-0.004	85	12060	2.00	1.57	
97 cis-1,3-Dichloropropene	75	8.497	8.501	-0.004	91	107388	2.00	1.97	
98 4-Methyl-2-pentanone (MIBK)	43	8.723	8.710	0.013	97	125802	8.00	5.81	
99 Toluene	91	8.967	8.971	-0.004	98	237075	2.00	1.92	
100 trans-1,3-Dichloropropene	75	9.281	9.285	-0.004	97	78291	2.00	1.99	
101 Ethyl methacrylate	69	9.420	9.406	0.014	96	70056	2.00	2.09	
102 1,1,2-Trichloroethane	97	9.559	9.546	0.013	66	51927	2.00	2.10	
103 Tetrachloroethene	164	9.768	9.772	-0.004	96	71310	2.00	1.90	
104 1,3-Dichloropropane	76	9.785	9.789	-0.004	95	87035	2.00	2.05	
105 2-Hexanone	43	9.925	9.929	-0.004	98	85245	8.00	6.00	
108 Chlorodibromomethane	129	10.151	10.155	-0.004	91	82411	2.00	2.00	
109 Ethylene Dibromide	107	10.325	10.329	-0.004	97	58280	2.00	2.00	
110 1-Chlorohexane	91	11.109	11.113	-0.004	89	118927	2.00	1.87	
111 Chlorobenzene	112	11.143	11.147	-0.004	89	161425	2.00	1.95	
112 1,1,1,2-Tetrachloroethane	131	11.283	11.287	-0.004	83	77661	2.00	1.94	
113 Ethylbenzene	106	11.317	11.322	-0.005	99	82557	2.00	1.95	
114 m-Xylene & p-Xylene	106	11.492	11.496	-0.004	97	102405	2.00	1.78	
115 o-Xylene	106	12.066	12.070	-0.004	99	100515	2.00	1.99	
116 Styrene	104	12.083	12.088	-0.005	93	160271	2.00	1.97	
117 Bromoform	173	12.345	12.349	-0.004	93	43536	2.00	1.95	
118 Isopropylbenzene	105	12.554	12.558	-0.004	97	305501	2.00	1.94	
120 Cyclohexanone	55	12.693	12.697	-0.004	96	29957	80.0	60.0	
122 Bromobenzene	156	12.937	12.941	-0.004	91	73134	2.00	2.01	
121 1,1,2,2-Tetrachloroethane	83	12.954	12.958	-0.004	91	68821	2.00	2.10	
123 1,2,3-Trichloropropane	110	13.006	12.993	0.013	78	16148	2.00	2.11	
124 trans-1,4-Dichloro-2-buten	53	13.006	13.028	-0.022	67	18311	2.00	2.13	
125 N-Propylbenzene	120	13.076	13.080	-0.004	99	76813	2.00	1.99	
126 2-Chlorotoluene	126	13.180	13.184	-0.004	96	60448	2.00	2.02	
127 1,3,5-Trimethylbenzene	105	13.302	13.289	0.013	94	234990	2.00	1.97	
128 4-Chlorotoluene	126	13.320	13.306	0.014	97	78238	2.00	2.03	
129 tert-Butylbenzene	119	13.668	13.672	-0.004	95	250654	2.00	1.94	
130 1,2,4-Trimethylbenzene	105	13.720	13.724	-0.004	95	221512	2.00	1.96	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	13.911	13.916	-0.005	95	69410	2.00	2.03	
132 1,3-Dichlorobenzene	146	14.033	14.037	-0.004	94	108495	2.00	1.97	
133 4-Isopropyltoluene	119	14.086	14.072	0.014	98	292735	2.00	2.00	
134 1,4-Dichlorobenzene	146	14.138	14.142	-0.004	90	173354	2.00	2.03	
137 n-Butylbenzene	91	14.503	14.507	-0.004	99	295629	2.00	1.92	
138 1,2-Dichlorobenzene	146	14.538	14.542	-0.004	95	117567	2.00	2.03	
139 1,2-Dibromo-3-Chloropropan	157	15.322	15.326	-0.004	82	11040	2.00	2.04	
144 1,2,3-Trichlorobenzene	180	16.523	16.074	0.449	89	56420	2.00	1.56	a
142 Hexachlorobutadiene	225	16.227	16.231	-0.004	96	81678	2.00	2.01	
143 Naphthalene	128	16.297	16.301	-0.004	97	88140	2.00	1.99	
141 1,2,4-Trichlorobenzene	180	16.070	16.527	-0.457	90	79388	2.00	2.34	a
S 151 1,2-Dichloroethene, Total	96				0		4.00	3.89	
S 145 Trihalomethanes, Total	1				0		8.00	7.94	
S 146 Xylenes, Total (URS)	1				0		4.00	3.77	
S 147 Total BTEX	1				0			9.60	
S 148 1,3-Dichloropropene, Total	1				0		4.00	3.96	
S 149 1,2-Dichloroethene, Total	1				0		4.00	3.89	
S 150 Xylenes, Total	106				0		4.00	3.77	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Main A_00022	Amount Added: 1.00	Units: uL
MV-Gas/Ket A_00033	Amount Added: 1.00	Units: uL
MV-2cleve+AVA_00009	Amount Added: 1.00	Units: uL

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2951.D

Injection Date: 28-May-2015 01:03:30

Instrument ID: VMS_H

Operator ID: BERGERB

Lims ID: ic

Worklist Smp#: 11

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

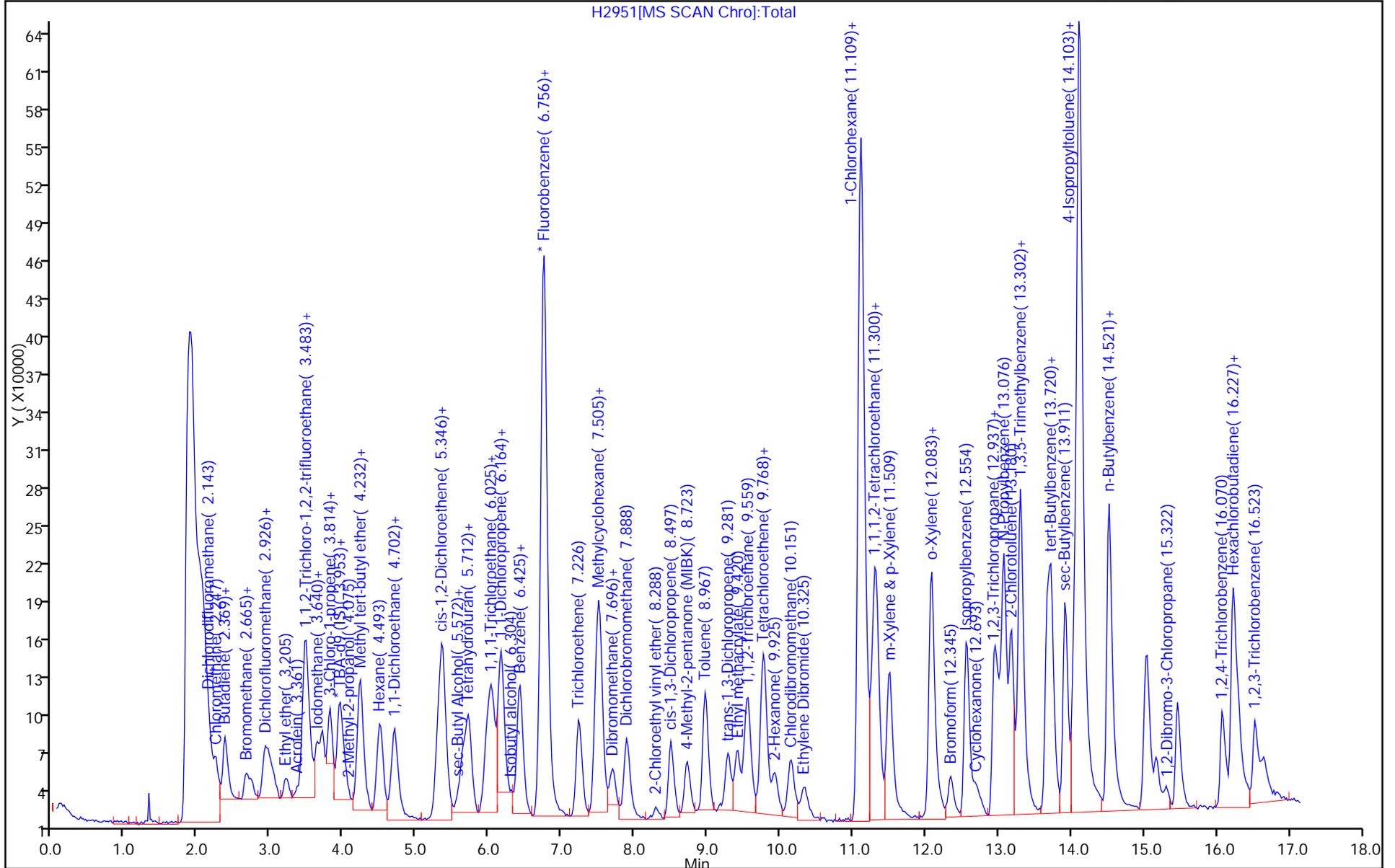
ALS Bottle#: 5

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



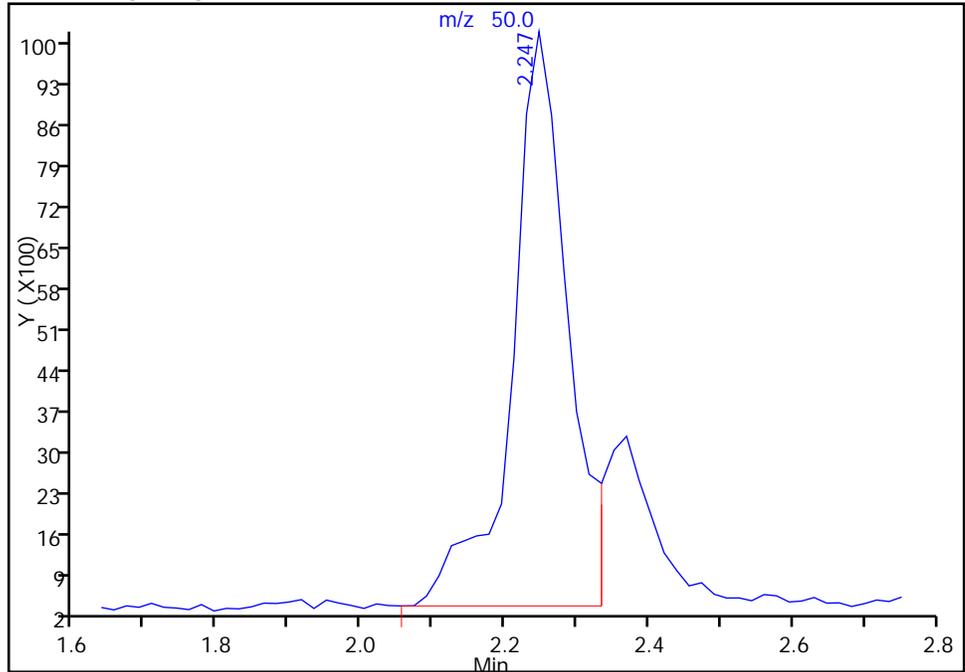
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2951.D
Injection Date: 28-May-2015 01:03:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 5 Worklist Smp#: 11
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

30 Chloromethane, CAS: 74-87-3

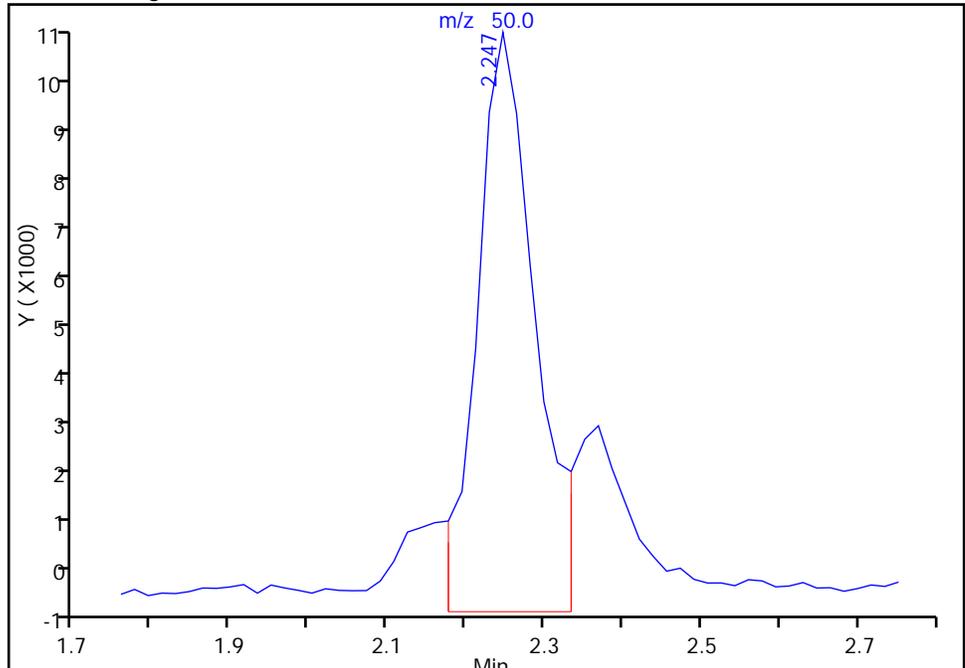
RT: 2.25
Area: 53646
Amount: 1.676096
Amount Units: ug/l

Processing Integration Results



RT: 2.25
Area: 53286
Amount: 1.666187
Amount Units: ug/l

Manual Integration Results



Reviewer: wickhamt, 28-May-2015 06:22:57
Audit Action: Assigned New Baseline
Audit Reason: Shouldering

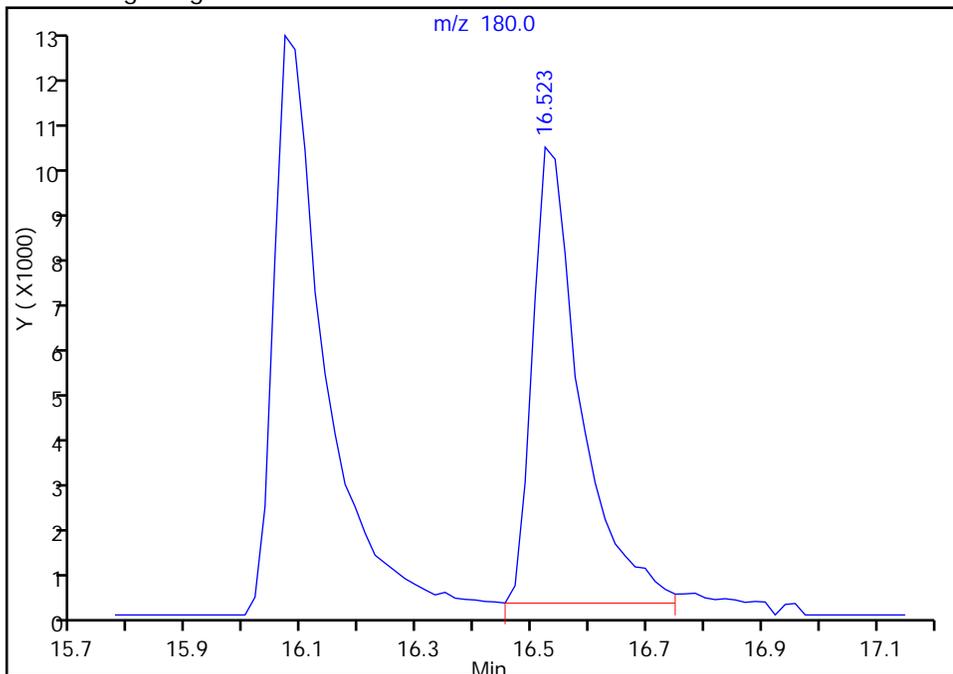
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2951.D
Injection Date: 28-May-2015 01:03:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 5 Worklist Smp#: 11
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

141 1,2,4-Trichlorobenzene, CAS: 120-82-1

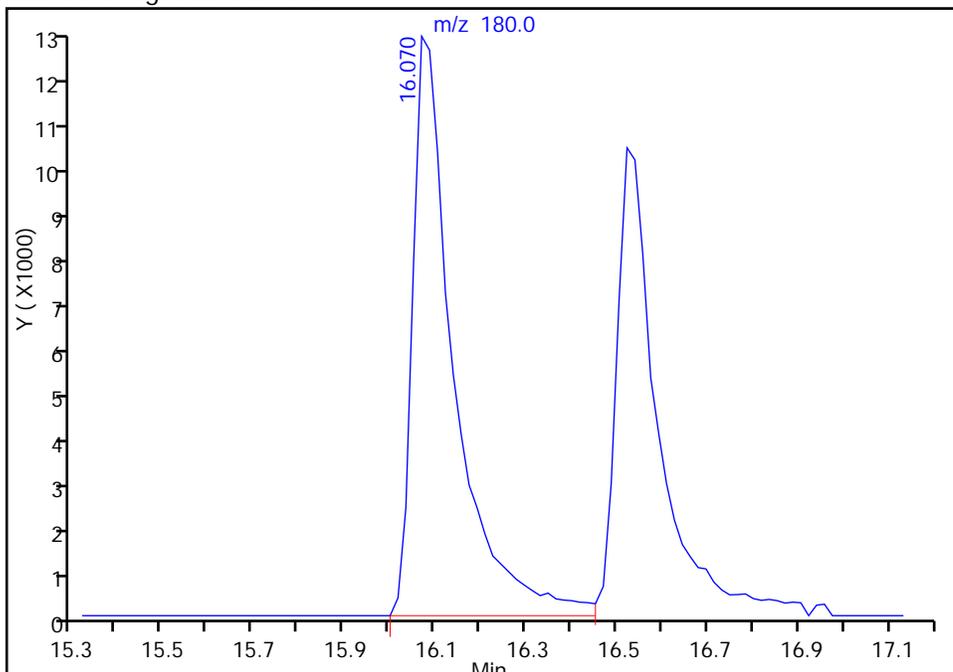
RT: 16.52
Area: 56420
Amount: 1.745219
Amount Units: ug/l

Processing Integration Results



RT: 16.07
Area: 79388
Amount: 2.337079
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:04:02
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

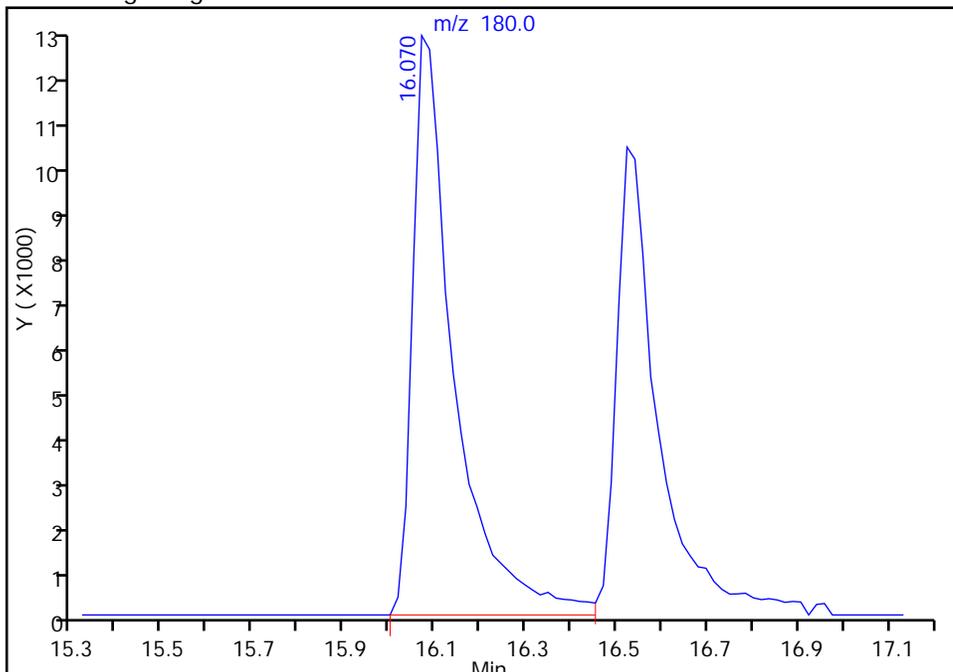
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2951.D
Injection Date: 28-May-2015 01:03:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 5 Worklist Smp#: 11
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

144 1,2,3-Trichlorobenzene, CAS: 87-61-6

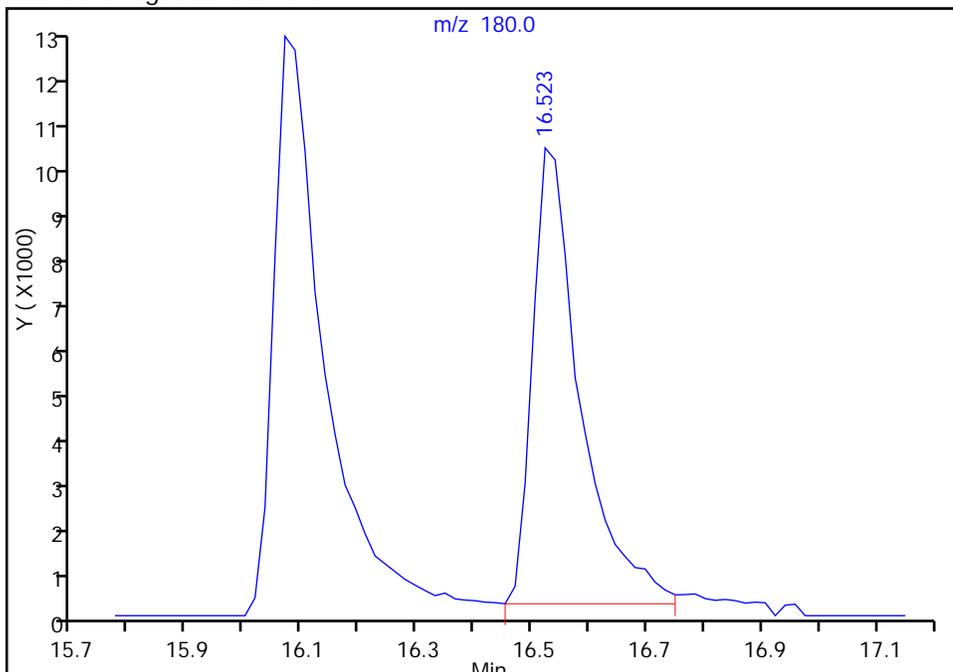
RT: 16.07
Area: 79388
Amount: 2.133564
Amount Units: ug/l

Processing Integration Results



RT: 16.52
Area: 56420
Amount: 1.559763
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:04:02
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2952.D
 Lims ID: ic
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 28-May-2015 01:25:30 ALS Bottle#: 6 Worklist Smp#: 12
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: BERGERB Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub99
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 08:04:17 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK030

First Level Reviewer: wickhamt

Date: 28-May-2015 06:24:03

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.987	3.974	0.013	96	195219	250.0	250.0	
* 2 Fluorobenzene	96	6.755	6.759	-0.004	95	1029988	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.108	11.094	0.014	93	227484	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.120	14.106	0.014	97	377031	12.5	12.5	
28 Dichlorodifluoromethane	85	2.159	2.164	-0.005	98	247178	5.00	5.03	
30 Chloromethane	50	2.264	2.269	-0.005	100	162089	5.00	5.05	
31 Butadiene	54	2.368	2.373	-0.005	0	127553	NC	NC	
32 Vinyl chloride	62	2.386	2.390	-0.004	97	159681	5.00	5.09	
35 Bromomethane	94	2.682	2.669	0.013	91	132730	5.00	5.10	
36 Chloroethane	64	2.751	2.756	-0.005	99	103163	5.00	5.41	
37 Dichlorofluoromethane	67	2.925	2.930	-0.005	99	365019	5.00	5.28	
38 Trichlorofluoromethane	101	2.978	2.982	-0.004	99	321455	5.00	5.20	
40 Ethyl ether	59	3.221	3.226	-0.005	94	84807	5.00	5.19	
44 Acrolein	56	3.361	3.365	-0.004	99	59073	50.0	52.5	
45 1,1-Dichloroethene	96	3.465	3.470	-0.005	94	159253	5.00	5.18	
46 1,1,2-Trichloro-1,2,2-trif	151	3.500	3.487	0.013	97	219337	5.00	5.23	
47 Acetone	43	3.517	3.505	0.012	41	62422	20.0	19.5	
48 Iodomethane	142	3.639	3.644	-0.005	99	351110	5.00	5.07	
50 Carbon disulfide	76	3.726	3.731	-0.005	99	599818	5.00	5.06	
52 3-Chloro-1-propene	41	3.813	3.818	-0.005	92	363829	5.00	5.10	
53 Methyl acetate	43	3.831	3.818	0.013	98	259179	25.0	25.0	
54 Methylene Chloride	84	3.952	3.957	-0.005	98	146368	5.00	5.15	
55 2-Methyl-2-propanol	59	4.074	4.062	0.012	96	50634	50.0	51.2	
57 Acrylonitrile	53	4.214	4.201	0.013	99	132956	50.0	49.5	
58 trans-1,2-Dichloroethene	96	4.231	4.236	-0.005	94	179063	5.00	5.17	
56 Methyl tert-butyl ether	73	4.231	4.236	-0.005	86	296103	5.00	5.05	
59 Hexane	57	4.510	4.514	-0.004	95	314081	5.00	5.15	
60 1,1-Dichloroethane	63	4.684	4.688	-0.004	96	364528	5.00	4.99	
61 Vinyl acetate	43	4.718	4.723	-0.005	96	489475	10.0	10.8	
65 cis-1,2-Dichloroethene	96	5.363	5.367	-0.004	88	175089	5.00	5.02	
67 2-Butanone (MEK)	43	5.363	5.367	-0.004	50	115653	20.0	19.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	5.380	5.385	-0.005	90	357591	5.00	5.16	
71 sec-Butyl Alcohol	45	5.589	5.576	0.013	97	188288	150.0	134.7	
73 Chlorobromomethane	128	5.659	5.663	-0.004	89	77430	5.00	5.06	
74 Tetrahydrofuran	42	5.711	5.716	-0.005	40	41570	10.0	9.77	
75 Chloroform	83	5.728	5.733	-0.005	96	348497	5.00	5.11	
76 1,1,1-Trichloroethane	97	5.972	5.977	-0.005	97	334275	5.00	5.13	
77 Cyclohexane	56	6.042	6.046	-0.004	97	370277	5.00	5.15	
78 1,1-Dichloropropene	75	6.163	6.168	-0.005	91	295185	5.00	5.05	
79 Carbon tetrachloride	117	6.181	6.186	-0.005	97	312599	5.00	5.16	
80 Isobutyl alcohol	41	6.285	6.290	-0.005	94	58888	125.0	120.3	
81 Benzene	78	6.425	6.429	-0.004	97	549811	5.00	5.10	
82 1,2-Dichloroethane	62	6.442	6.447	-0.005	96	165237	5.00	5.07	
84 n-Heptane	43	6.721	6.725	-0.004	97	498964	5.00	5.22	
86 Trichloroethene	95	7.225	7.230	-0.005	97	227548	5.00	5.19	
88 2-Pentanone	43	7.469	7.474	-0.005	95	317235	20.0	19.4	
89 Methylcyclohexane	55	7.504	7.491	0.013	89	331927	5.00	5.18	
90 1,2-Dichloropropane	63	7.539	7.526	0.013	96	215066	5.00	4.99	
92 Dibromomethane	93	7.696	7.700	-0.004	91	107201	5.00	4.99	
93 1,4-Dioxane	88	7.748	7.718	0.030	30	11405	100.0	100.1	
94 Dichlorobromomethane	83	7.887	7.892	-0.005	98	314609	5.00	5.02	
96 2-Chloroethyl vinyl ether	63	8.287	8.292	-0.005	89	37567	5.00	4.88	
97 cis-1,3-Dichloropropene	75	8.496	8.501	-0.005	91	276201	5.00	5.15	
98 4-Methyl-2-pentanone (MIBK)	43	8.723	8.710	0.013	97	425851	20.0	19.5	
99 Toluene	91	8.966	8.971	-0.005	97	621009	5.00	5.02	
100 trans-1,3-Dichloropropene	75	9.280	9.285	-0.005	98	203021	5.00	5.14	
101 Ethyl methacrylate	69	9.419	9.406	0.013	95	165619	5.00	5.03	
102 1,1,2-Trichloroethane	97	9.541	9.546	-0.005	94	124206	5.00	5.01	
103 Tetrachloroethene	164	9.767	9.772	-0.005	96	191028	5.00	5.16	
104 1,3-Dichloropropane	76	9.785	9.789	-0.004	94	205450	5.00	4.93	
105 2-Hexanone	43	9.924	9.929	-0.005	98	277410	20.0	18.7	
108 Chlorodibromomethane	129	10.150	10.155	-0.005	90	197422	5.00	4.86	
109 Ethylene Dibromide	107	10.324	10.329	-0.005	99	143966	5.00	5.03	
110 1-Chlorohexane	91	11.108	11.113	-0.005	91	315700	5.00	5.05	
111 Chlorobenzene	112	11.143	11.147	-0.004	90	413665	5.00	5.07	
112 1,1,1,2-Tetrachloroethane	131	11.282	11.287	-0.005	93	201252	5.00	5.11	
113 Ethylbenzene	106	11.317	11.322	-0.005	99	213988	5.00	5.14	
114 m-Xylene & p-Xylene	106	11.508	11.496	0.012	98	290550	5.00	5.14	
115 o-Xylene	106	12.065	12.070	-0.005	99	253986	5.00	5.12	
116 Styrene	104	12.083	12.088	-0.005	93	413563	5.00	5.16	
117 Bromoform	173	12.344	12.349	-0.005	93	112580	5.00	5.14	
118 Isopropylbenzene	105	12.570	12.558	0.012	97	812395	5.00	5.03	
120 Cyclohexanone	55	12.692	12.697	-0.005	95	94188	200.0	188.0	
122 Bromobenzene	156	12.953	12.941	0.012	94	189284	5.00	5.08	
121 1,1,2,2-Tetrachloroethane	83	12.953	12.958	-0.005	94	162847	5.00	4.84	
123 1,2,3-Trichloropropane	110	13.005	12.993	0.012	79	37836	5.00	4.81	
124 trans-1,4-Dichloro-2-buten	53	13.023	13.028	-0.005	70	44139	5.00	5.00	
125 N-Propylbenzene	120	13.075	13.080	-0.005	99	201896	5.00	5.11	
126 2-Chlorotoluene	126	13.180	13.184	-0.004	96	150706	5.00	4.92	
127 1,3,5-Trimethylbenzene	105	13.301	13.289	0.012	94	610567	5.00	5.00	
128 4-Chlorotoluene	126	13.319	13.306	0.013	98	193360	5.00	4.88	
129 tert-Butylbenzene	119	13.667	13.672	-0.005	95	664399	5.00	5.01	
130 1,2,4-Trimethylbenzene	105	13.719	13.724	-0.005	96	580572	5.00	5.00	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	13.928	13.916	0.012	95	177196	5.00	5.06	
132 1,3-Dichlorobenzene	146	14.050	14.037	0.013	97	276824	5.00	4.89	
133 4-Isopropyltoluene	119	14.085	14.072	0.013	98	767309	5.00	5.10	
134 1,4-Dichlorobenzene	146	14.137	14.142	-0.005	93	443692	5.00	5.08	
137 n-Butylbenzene	91	14.503	14.507	-0.004	99	798058	5.00	5.05	
138 1,2-Dichlorobenzene	146	14.537	14.542	-0.005	96	298057	5.00	5.02	
139 1,2-Dibromo-3-Chloropropan	157	15.304	15.326	-0.022	79	27832	5.00	5.02	
144 1,2,3-Trichlorobenzene	180	16.540	16.074	0.466	94	158675	5.00	4.07	a
142 Hexachlorobutadiene	225	16.226	16.231	-0.005	96	209088	5.00	5.03	
143 Naphthalene	128	16.296	16.301	-0.005	98	221754	5.00	4.88	
141 1,2,4-Trichlorobenzene	180	16.087	16.527	-0.440	94	201768	5.00	5.59	a
S 151 1,2-Dichloroethene, Total	96				0		10.0	10.2	
S 145 Trihalomethanes, Total	1				0		20.0	20.1	
S 146 Xylenes, Total (URS)	1				0		10.0	10.3	
S 147 Total BTEX	1				0			25.5	
S 148 1,3-Dichloropropene, Total	1				0		10.0	10.3	
S 149 1,2-Dichloroethene, Total	1				0		10.0	10.2	
S 150 Xylenes, Total	106				0		10.0	10.3	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

a - User Assigned ID

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Main A_00022	Amount Added: 2.50	Units: uL
MV-Gas/Ket A_00033	Amount Added: 2.50	Units: uL
MV-2cleve+AVA_00009	Amount Added: 2.50	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2952.D

Injection Date: 28-May-2015 01:25:30

Instrument ID: VMS_H

Operator ID: BERGERB

Lims ID: ic

Worklist Smp#: 12

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

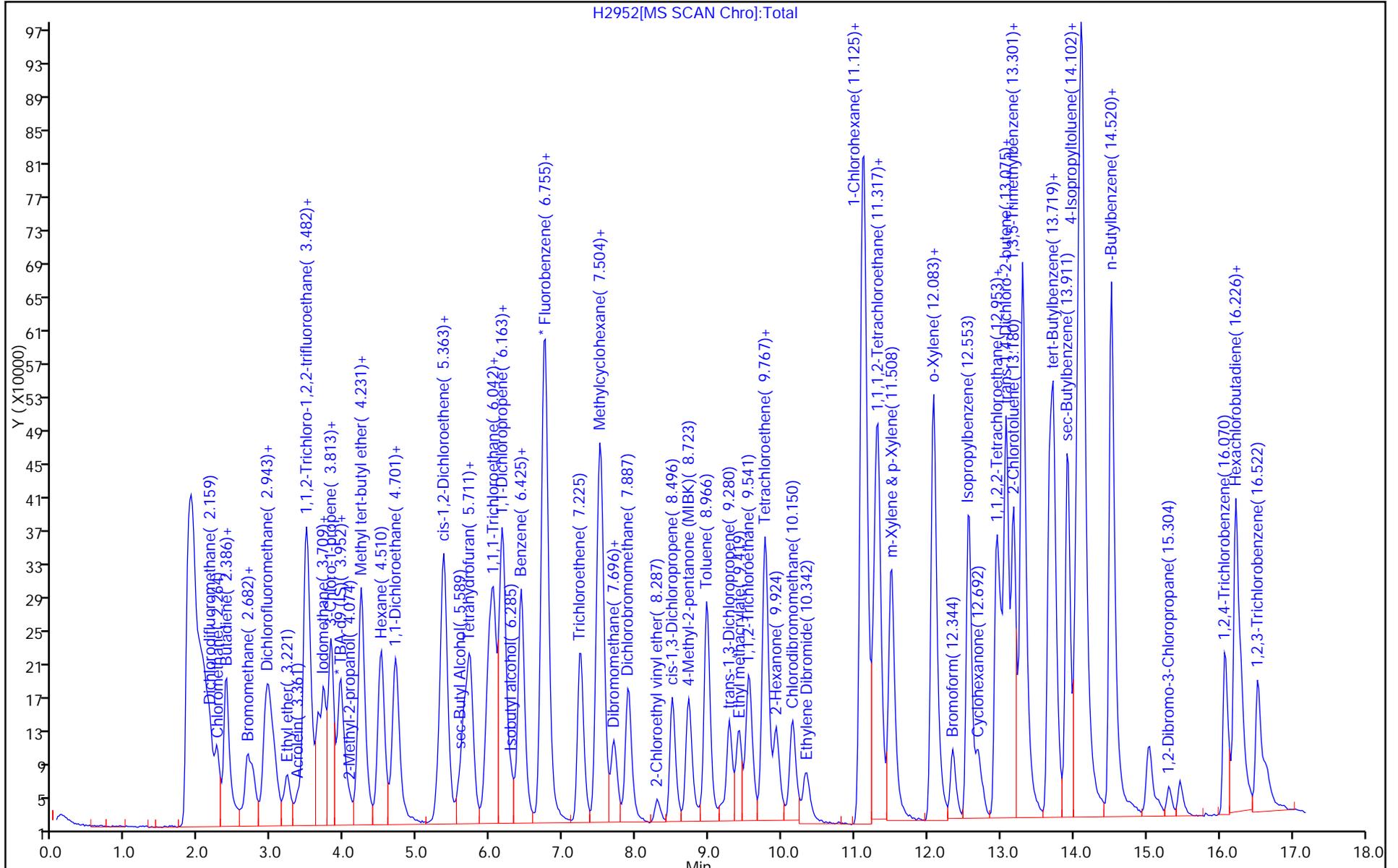
ALS Bottle#: 6

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



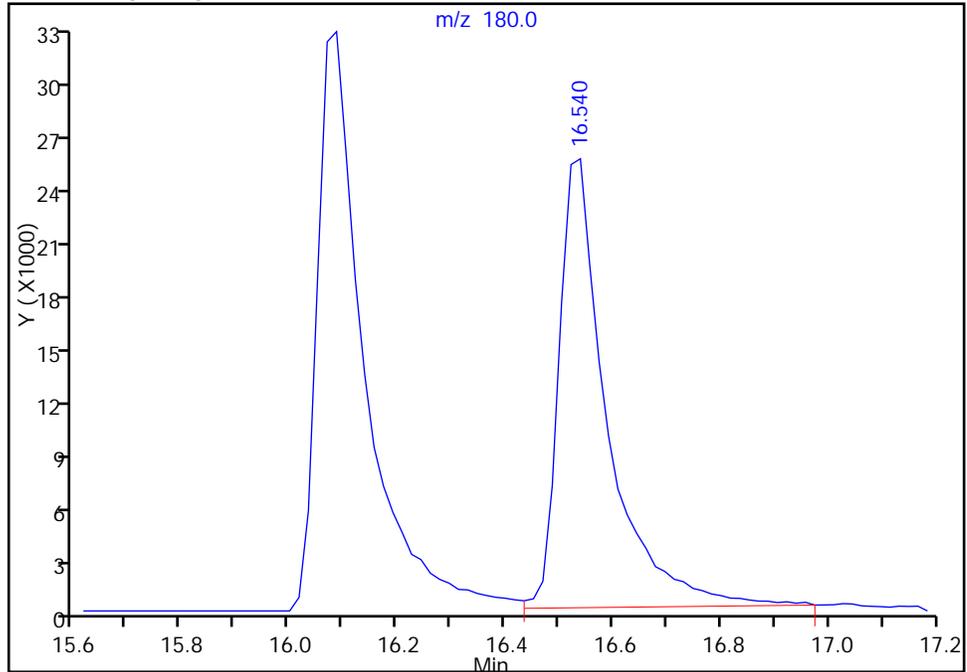
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2952.D
Injection Date: 28-May-2015 01:25:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 6 Worklist Smp#: 12
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

141 1,2,4-Trichlorobenzene, CAS: 120-82-1

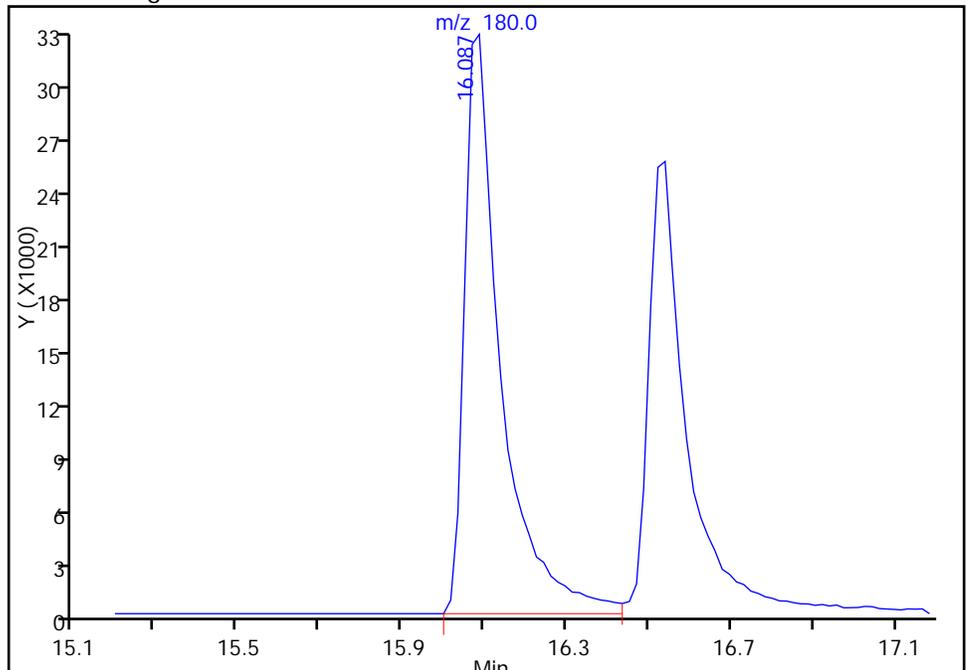
RT: 16.54
Area: 158675
Amount: 4.554130
Amount Units: ug/l

Processing Integration Results



RT: 16.09
Area: 201768
Amount: 5.593289
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:04:17
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

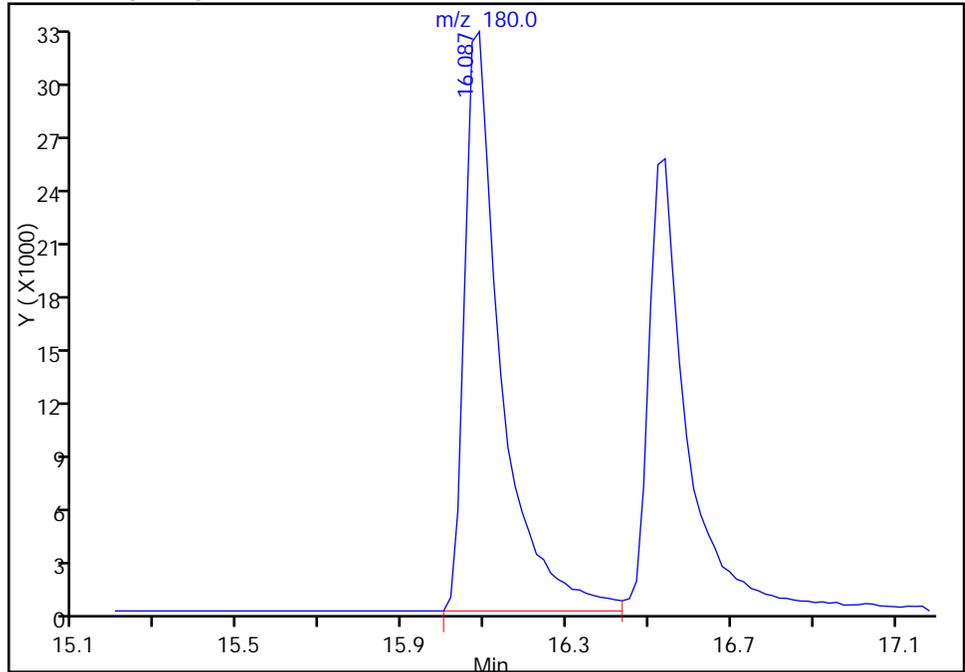
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2952.D
Injection Date: 28-May-2015 01:25:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 6 Worklist Smp#: 12
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

144 1,2,3-Trichlorobenzene, CAS: 87-61-6

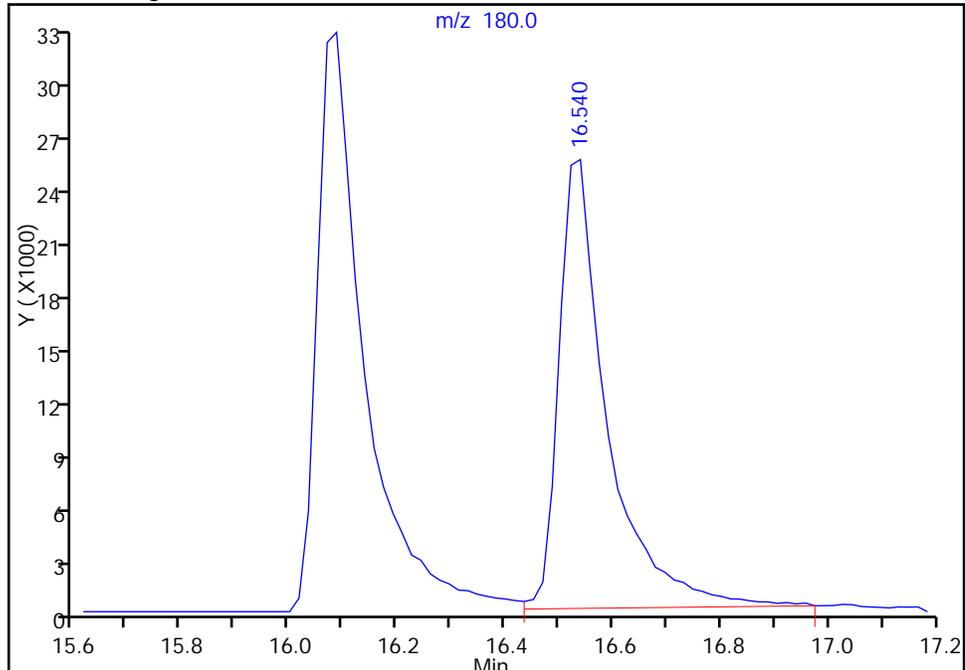
RT: 16.09
Area: 201768
Amount: 5.061159
Amount Units: ug/l

Processing Integration Results



RT: 16.54
Area: 158675
Amount: 4.074146
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:04:17
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2953.D
 Lims ID: ic
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 28-May-2015 01:48:30 ALS Bottle#: 7 Worklist Smp#: 13
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: BERGERB Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub99
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 08:04:33 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK030

First Level Reviewer: wickhamt

Date: 28-May-2015 06:16:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.975	3.975	0.000	97	213064	250.0	250.0	
* 2 Fluorobenzene	96	6.760	6.760	0.000	97	1060270	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.113	11.113	0.000	93	230984	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.107	14.107	0.000	97	388500	12.5	12.5	
28 Dichlorodifluoromethane	85	2.164	2.164	0.000	98	490322	10.0	9.60	
30 Chloromethane	50	2.269	2.269	0.000	98	338017	10.0	10.2	
31 Butadiene	54	2.373	2.373	0.000	0	261973	NC	NC	
32 Vinyl chloride	62	2.390	2.390	0.000	98	329568	10.0	10.2	
35 Bromomethane	94	2.669	2.669	0.000	91	285208	10.0	10.6	
36 Chloroethane	64	2.756	2.756	0.000	100	210596	10.0	10.7	
37 Dichlorofluoromethane	67	2.930	2.930	0.000	99	766394	10.0	10.8	
38 Trichlorofluoromethane	101	2.982	2.982	0.000	99	675996	10.0	10.6	
40 Ethyl ether	59	3.226	3.226	0.000	93	171739	10.0	10.2	
44 Acrolein	56	3.365	3.365	0.000	98	113181	100.0	97.6	
45 1,1-Dichloroethene	96	3.470	3.470	0.000	94	321941	10.0	10.2	
46 1,1,2-Trichloro-1,2,2-trif	151	3.487	3.487	0.000	98	443684	10.0	10.3	
47 Acetone	43	3.505	3.505	0.000	97	132884	40.0	40.3	
48 Iodomethane	142	3.644	3.644	0.000	99	723408	10.0	10.2	
50 Carbon disulfide	76	3.731	3.731	0.000	100	1216758	10.0	9.97	
52 3-Chloro-1-propene	41	3.818	3.818	0.000	91	733581	10.0	9.98	
53 Methyl acetate	43	3.818	3.818	0.000	97	568374	50.0	53.2	
54 Methylene Chloride	84	3.957	3.957	0.000	98	289949	10.0	10.3	
55 2-Methyl-2-propanol	59	4.062	4.062	0.000	95	103361	100.0	99.7	
57 Acrylonitrile	53	4.201	4.201	0.000	97	286517	100.0	103.7	
58 trans-1,2-Dichloroethene	96	4.236	4.236	0.000	95	351195	10.0	9.86	
56 Methyl tert-butyl ether	73	4.236	4.236	0.000	96	620688	10.0	10.3	
59 Hexane	57	4.514	4.514	0.000	95	656745	10.0	10.6	
60 1,1-Dichloroethane	63	4.688	4.688	0.000	96	742521	10.0	9.87	
61 Vinyl acetate	43	4.723	4.723	0.000	96	959261	20.0	20.6	
65 cis-1,2-Dichloroethene	96	5.367	5.367	0.000	88	367183	10.0	10.2	
67 2-Butanone (MEK)	43	5.367	5.367	0.000	96	271060	40.0	44.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	5.385	5.385	0.000	91	676578	10.0	10.1	
71 sec-Butyl Alcohol	45	5.576	5.576	0.000	96	424147	300.0	278.0	
73 Chlorobromomethane	128	5.663	5.663	0.000	89	163111	10.0	10.4	
74 Tetrahydrofuran	42	5.716	5.716	0.000	94	91342	20.0	20.9	
75 Chloroform	83	5.733	5.733	0.000	96	703605	10.0	10.0	
76 1,1,1-Trichloroethane	97	5.977	5.977	0.000	96	682150	10.0	10.2	
77 Cyclohexane	56	6.046	6.046	0.000	97	759284	10.0	10.3	
78 1,1-Dichloropropene	75	6.168	6.168	0.000	92	587910	10.0	9.78	
79 Carbon tetrachloride	117	6.186	6.186	0.000	98	634790	10.0	10.2	
80 Isobutyl alcohol	41	6.290	6.290	0.000	91	133112	250.0	249.1	
81 Benzene	78	6.429	6.429	0.000	98	1127346	10.0	10.1	
82 1,2-Dichloroethane	62	6.447	6.447	0.000	96	340868	10.0	10.2	
84 n-Heptane	43	6.725	6.725	0.000	97	1009732	10.0	10.3	
86 Trichloroethene	95	7.230	7.230	0.000	97	465659	10.0	10.3	
88 2-Pentanone	43	7.474	7.474	0.000	96	715858	40.0	42.4	
89 Methylcyclohexane	55	7.491	7.491	0.000	90	687055	10.0	10.4	
90 1,2-Dichloropropane	63	7.526	7.526	0.000	87	443299	10.0	10.0	
92 Dibromomethane	93	7.700	7.700	0.000	92	221961	10.0	10.0	
93 1,4-Dioxane	88	7.718	7.718	0.000	30	24744	200.0	197.9	
94 Dichlorobromomethane	83	7.892	7.892	0.000	98	672865	10.0	10.4	
96 2-Chloroethyl vinyl ether	63	8.292	8.292	0.000	88	74647	10.0	9.41	
97 cis-1,3-Dichloropropene	75	8.501	8.501	0.000	91	571072	10.0	10.5	
98 4-Methyl-2-pentanone (MIBK)	43	8.710	8.710	0.000	97	1002764	40.0	44.5	
99 Toluene	91	8.971	8.971	0.000	97	1267160	10.0	9.95	
100 trans-1,3-Dichloropropene	75	9.285	9.285	0.000	99	414785	10.0	10.2	
101 Ethyl methacrylate	69	9.406	9.406	0.000	96	351571	10.0	10.5	
102 1,1,2-Trichloroethane	97	9.546	9.546	0.000	93	248293	10.0	9.73	
103 Tetrachloroethene	164	9.772	9.772	0.000	95	395487	10.0	10.5	
104 1,3-Dichloropropane	76	9.789	9.789	0.000	95	440887	10.0	10.4	
105 2-Hexanone	43	9.929	9.929	0.000	98	653257	40.0	42.6	
108 Chlorodibromomethane	129	10.155	10.155	0.000	90	424072	10.0	10.3	
109 Ethylene Dibromide	107	10.329	10.329	0.000	98	309647	10.0	10.7	
110 1-Chlorohexane	91	11.113	11.113	0.000	92	633113	10.0	9.97	
111 Chlorobenzene	112	11.147	11.147	0.000	87	859727	10.0	10.4	
112 1,1,1,2-Tetrachloroethane	131	11.287	11.287	0.000	94	419142	10.0	10.5	
113 Ethylbenzene	106	11.322	11.322	0.000	99	449228	10.0	10.6	
114 m-Xylene & p-Xylene	106	11.496	11.496	0.000	97	601905	10.0	10.5	
115 o-Xylene	106	12.070	12.070	0.000	99	528399	10.0	10.5	
116 Styrene	104	12.088	12.088	0.000	93	858871	10.0	10.5	
117 Bromoform	173	12.349	12.349	0.000	94	243755	10.0	11.0	
118 Isopropylbenzene	105	12.558	12.558	0.000	97	1680664	10.0	10.1	
120 Cyclohexanone	55	12.697	12.697	0.000	98	223269	400.0	436.6	
122 Bromobenzene	156	12.941	12.941	0.000	94	397495	10.0	10.4	
121 1,1,2,2-Tetrachloroethane	83	12.958	12.958	0.000	93	350506	10.0	10.1	
123 1,2,3-Trichloropropane	110	12.993	12.993	0.000	82	79592	10.0	9.82	
124 trans-1,4-Dichloro-2-buten	53	13.028	13.028	0.000	68	86189	10.0	9.48	
125 N-Propylbenzene	120	13.080	13.080	0.000	99	412525	10.0	10.1	
126 2-Chlorotoluene	126	13.184	13.184	0.000	96	320058	10.0	10.1	
127 1,3,5-Trimethylbenzene	105	13.289	13.289	0.000	94	1267667	10.0	10.1	
128 4-Chlorotoluene	126	13.306	13.306	0.000	98	412960	10.0	10.1	
129 tert-Butylbenzene	119	13.672	13.672	0.000	94	1369653	10.0	10.0	
130 1,2,4-Trimethylbenzene	105	13.724	13.724	0.000	97	1206077	10.0	10.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	13.916	13.916	0.000	95	365299	10.0	10.1	
132 1,3-Dichlorobenzene	146	14.037	14.037	0.000	96	591386	10.0	10.1	
133 4-Isopropyltoluene	119	14.072	14.072	0.000	98	1595405	10.0	10.3	
134 1,4-Dichlorobenzene	146	14.142	14.142	0.000	93	897375	10.0	9.96	
137 n-Butylbenzene	91	14.507	14.507	0.000	99	1632647	10.0	10.0	
138 1,2-Dichlorobenzene	146	14.542	14.542	0.000	96	626018	10.0	10.2	
139 1,2-Dibromo-3-Chloropropan	157	15.326	15.326	0.000	77	61145	10.0	10.7	
144 1,2,3-Trichlorobenzene	180	16.527	16.527	0.000	93	333902	10.0	9.55	a
142 Hexachlorobutadiene	225	16.231	16.231	0.000	97	438309	10.0	10.2	
143 Naphthalene	128	16.301	16.301	0.000	98	486464	10.0	10.4	
141 1,2,4-Trichlorobenzene	180	16.074	16.074	0.000	94	429478	10.0	11.1	a
S 151 1,2-Dichloroethene, Total	96				0		20.0	20.1	
S 145 Trihalomethanes, Total	1				0		40.0	41.7	
S 146 Xylenes, Total (URS)	1				0		20.0	21.0	
S 148 1,3-Dichloropropene, Total	1				0		20.0	20.7	
S 149 1,2-Dichloroethene, Total	1				0		20.0	20.1	
S 150 Xylenes, Total	106				0		20.0	21.0	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

a - User Assigned ID

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Main A_00022	Amount Added: 5.00	Units: uL
MV-Gas/Ket A_00033	Amount Added: 5.00	Units: uL
MV-2cleve+AVA_00009	Amount Added: 5.00	Units: uL

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2953.D

Injection Date: 28-May-2015 01:48:30

Instrument ID: VMS_H

Operator ID: BERGERB

Lims ID: ic

Worklist Smp#: 13

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

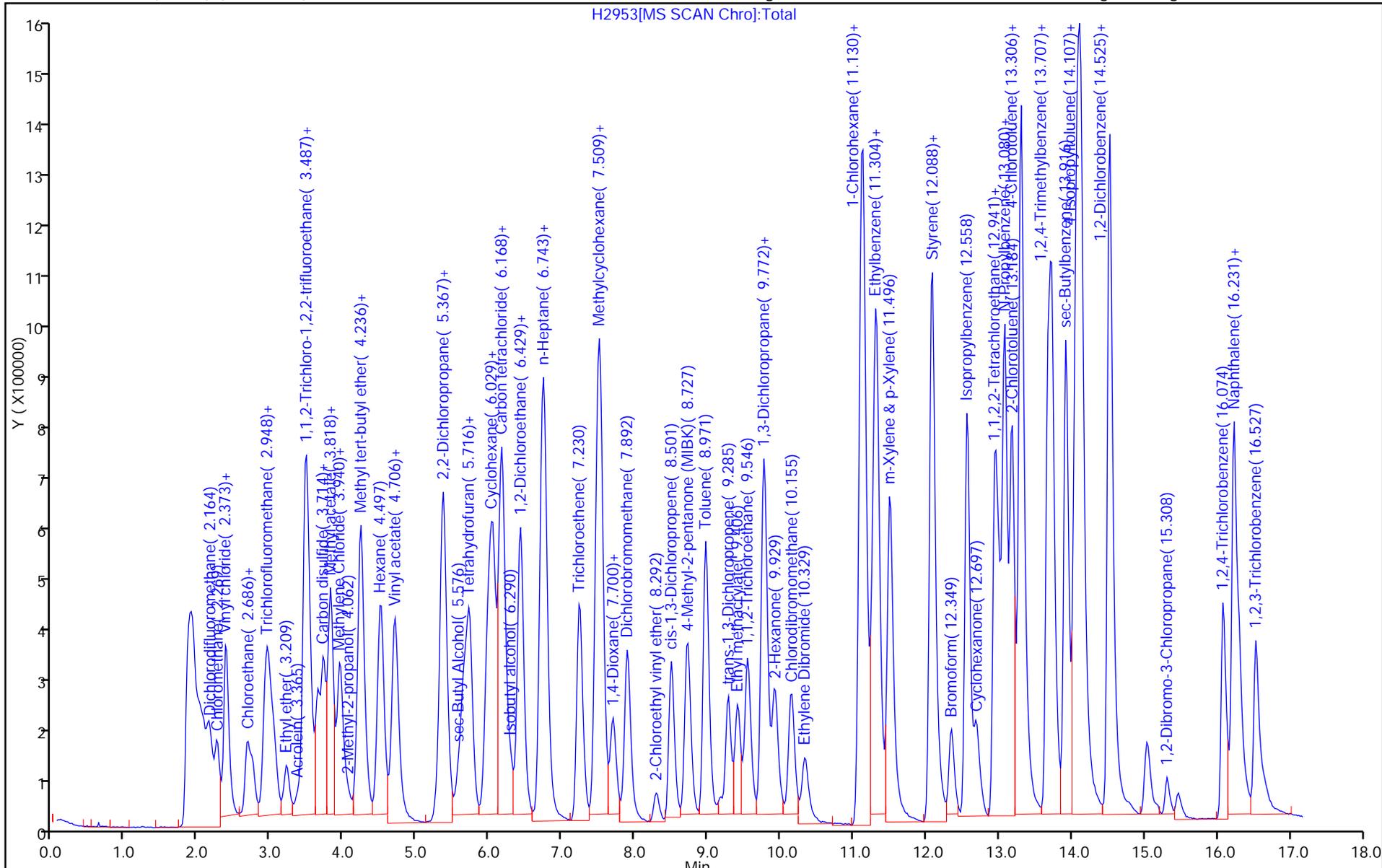
ALS Bottle#: 7

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



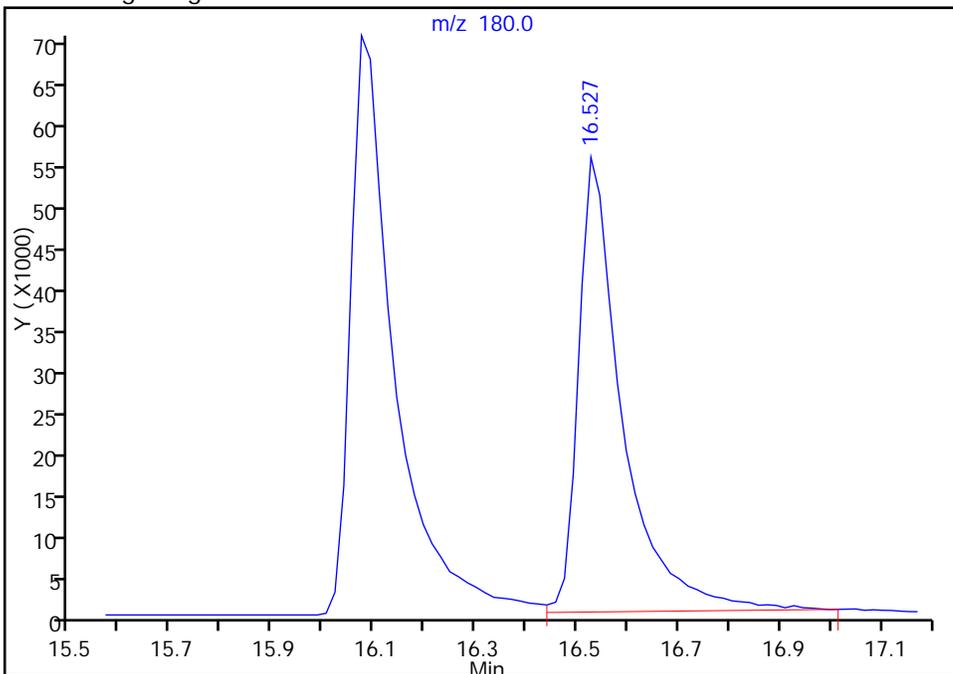
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2953.D
Injection Date: 28-May-2015 01:48:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 7 Worklist Smp#: 13
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

141 1,2,4-Trichlorobenzene, CAS: 120-82-1

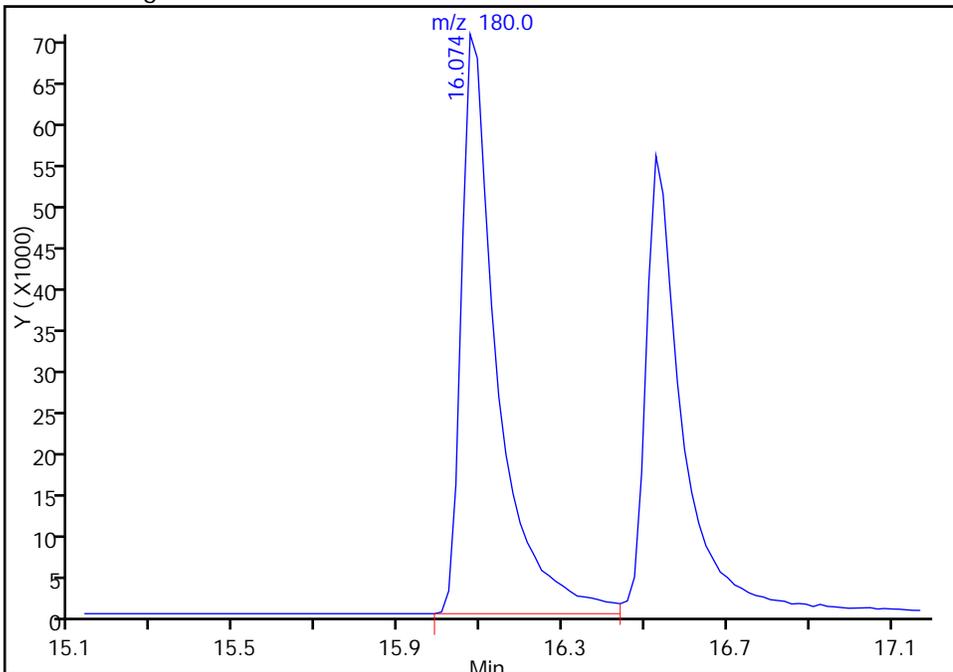
RT: 16.53
Area: 333902
Amount: 8.982972
Amount Units: ug/l

Processing Integration Results



RT: 16.07
Area: 429478
Amount: 11.144875
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:04:33
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

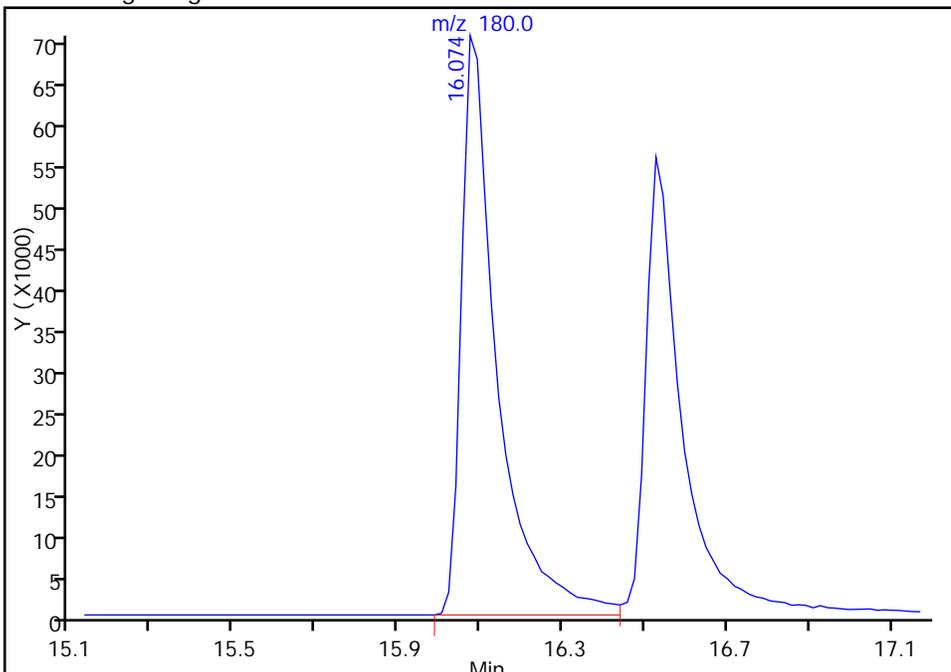
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2953.D
Injection Date: 28-May-2015 01:48:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 7 Worklist Smp#: 13
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

144 1,2,3-Trichlorobenzene, CAS: 87-61-6

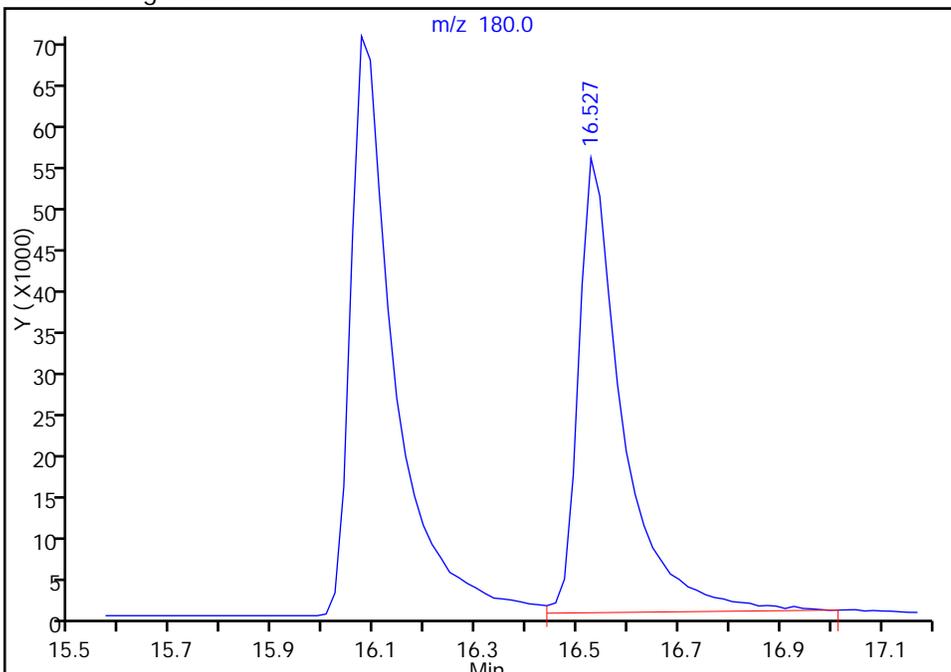
RT: 16.07
Area: 429478
Amount: 10.403969
Amount Units: ug/l

Processing Integration Results



RT: 16.53
Area: 333902
Amount: 9.551391
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:04:33
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2954.D
 Lims ID: ic
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 28-May-2015 02:10:30 ALS Bottle#: 8 Worklist Smp#: 14
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: BERGERB Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub99
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 08:04:52 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK030

First Level Reviewer: wickhamt

Date: 28-May-2015 06:25:39

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.987	3.975	0.012	96	211743	250.0	250.0	
* 2 Fluorobenzene	96	6.773	6.760	0.013	95	1066896	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.108	11.113	-0.005	93	237911	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.120	14.107	0.013	95	406093	12.5	12.5	
28 Dichlorodifluoromethane	85	2.159	2.164	-0.005	98	1582945	30.0	30.6	
30 Chloromethane	50	2.264	2.269	-0.005	99	1032956	30.0	31.1	
31 Butadiene	54	2.386	2.373	0.013	0	810368	NC	NC	
32 Vinyl chloride	62	2.386	2.390	-0.004	98	1028076	30.0	31.6	
35 Bromomethane	94	2.682	2.669	0.013	90	847148	30.0	31.4	
36 Chloroethane	64	2.751	2.756	-0.005	100	614520	30.0	31.1	
37 Dichlorofluoromethane	67	2.925	2.930	-0.005	99	2336784	30.0	32.6	
38 Trichlorofluoromethane	101	2.995	2.982	0.013	100	2060386	30.0	32.1	
40 Ethyl ether	59	3.221	3.226	-0.005	94	502993	30.0	29.7	
44 Acrolein	56	3.361	3.365	-0.004	100	354662	300.0	304.1	
45 1,1-Dichloroethene	96	3.465	3.470	-0.005	94	937902	30.0	29.4	
46 1,1,2-Trichloro-1,2,2-trif	151	3.500	3.487	0.013	98	1309750	30.0	30.2	
47 Acetone	43	3.517	3.505	0.012	98	376529	120.0	113.4	
48 Iodomethane	142	3.639	3.644	-0.005	99	2111383	30.0	29.4	
50 Carbon disulfide	76	3.726	3.731	-0.005	100	3580245	30.0	29.1	
52 3-Chloro-1-propene	41	3.813	3.818	-0.005	90	2163538	30.0	29.3	
53 Methyl acetate	43	3.831	3.818	0.013	98	1670946	150.0	155.5	
54 Methylene Chloride	84	3.953	3.957	-0.004	98	814145	30.0	29.7	
55 2-Methyl-2-propanol	59	4.057	4.062	-0.005	92	300590	300.0	300.7	
57 Acrylonitrile	53	4.196	4.201	-0.005	98	863563	300.0	310.6	
58 trans-1,2-Dichloroethene	96	4.231	4.236	-0.005	95	1056693	30.0	29.5	
56 Methyl tert-butyl ether	73	4.249	4.236	0.013	98	1794782	30.0	29.6	
59 Hexane	57	4.510	4.514	-0.004	95	1936877	30.0	30.4	
60 1,1-Dichloroethane	63	4.684	4.688	-0.004	96	2206706	30.0	29.2	
61 Vinyl acetate	43	4.719	4.723	-0.004	96	3086662	60.0	65.9	
65 cis-1,2-Dichloroethene	96	5.363	5.367	-0.004	89	1074834	30.0	29.8	
67 2-Butanone (MEK)	43	5.363	5.367	-0.004	97	820646	120.0	134.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	5.380	5.385	-0.005	92	1911674	30.0	29.9	
71 sec-Butyl Alcohol	45	5.572	5.576	-0.004	96	1291377	900.0	851.8	
73 Chlorobromomethane	128	5.659	5.663	-0.004	90	488660	30.0	30.8	
74 Tetrahydrofuran	42	5.711	5.716	-0.005	97	265724	60.0	60.3	
75 Chloroform	83	5.728	5.733	-0.005	97	2084195	30.0	29.5	
76 1,1,1-Trichloroethane	97	5.972	5.977	-0.005	97	2022539	30.0	30.0	
77 Cyclohexane	56	6.059	6.046	0.013	97	2254936	30.0	30.3	
78 1,1-Dichloropropene	75	6.164	6.168	-0.004	92	1748830	30.0	28.9	
79 Carbon tetrachloride	117	6.181	6.186	-0.005	97	1914881	30.0	30.5	
80 Isobutyl alcohol	41	6.286	6.290	-0.004	91	420168	750.0	791.2	
81 Benzene	78	6.425	6.429	-0.004	98	3405649	30.0	30.5	
82 1,2-Dichloroethane	62	6.442	6.447	-0.005	96	1008279	30.0	29.9	
84 n-Heptane	43	6.721	6.725	-0.004	97	3019511	30.0	30.5	
86 Trichloroethene	95	7.243	7.230	0.013	97	1391651	30.0	30.6	
88 2-Pentanone	43	7.469	7.474	-0.005	96	2088712	120.0	123.0	
89 Methylcyclohexane	55	7.504	7.491	0.013	90	2049189	30.0	30.9	
90 1,2-Dichloropropane	63	7.539	7.526	0.013	89	1320707	30.0	29.6	
92 Dibromomethane	93	7.696	7.700	-0.004	92	654298	30.0	29.4	
93 1,4-Dioxane	88	7.731	7.718	0.013	31	87288	600.0	663.8	
94 Dichlorobromomethane	83	7.905	7.892	0.013	98	1964681	30.0	30.2	
96 2-Chloroethyl vinyl ether	63	8.288	8.292	-0.004	89	271671	30.0	34.0	
97 cis-1,3-Dichloropropene	75	8.497	8.501	-0.004	91	1713888	30.0	30.6	
98 4-Methyl-2-pentanone (MIBK)	43	8.723	8.710	0.013	97	2918765	120.0	128.5	
99 Toluene	91	8.984	8.971	0.013	97	3836921	30.0	29.9	
100 trans-1,3-Dichloropropene	75	9.280	9.285	-0.005	98	1231322	30.0	30.1	
101 Ethyl methacrylate	69	9.419	9.406	0.013	97	1050575	30.0	30.5	
102 1,1,2-Trichloroethane	97	9.559	9.546	0.013	93	735362	30.0	28.6	
103 Tetrachloroethene	164	9.767	9.772	-0.005	96	1183439	30.0	30.6	
104 1,3-Dichloropropane	76	9.802	9.789	0.013	95	1297830	30.0	29.8	
105 2-Hexanone	43	9.924	9.929	-0.005	98	1981716	120.0	124.4	
108 Chlorodibromomethane	129	10.150	10.155	-0.005	90	1317455	30.0	31.0	
109 Ethylene Dibromide	107	10.342	10.329	0.013	98	925921	30.0	30.9	
110 1-Chlorohexane	91	11.125	11.113	0.012	91	1911706	30.0	29.2	
111 Chlorobenzene	112	11.160	11.147	0.013	90	2540363	30.0	29.8	
112 1,1,1,2-Tetrachloroethane	131	11.282	11.287	-0.005	96	1254447	30.0	30.5	
113 Ethylbenzene	106	11.334	11.322	0.012	99	1300912	30.0	29.9	
114 m-Xylene & p-Xylene	106	11.508	11.496	0.012	98	1816296	30.0	30.7	
115 o-Xylene	106	12.083	12.070	0.013	99	1578391	30.0	30.4	
116 Styrene	104	12.100	12.088	0.012	93	2556260	30.0	30.5	
117 Bromoform	173	12.344	12.349	-0.005	94	737056	30.0	32.2	
118 Isopropylbenzene	105	12.570	12.558	0.012	97	4996844	30.0	28.7	
120 Cyclohexanone	55	12.692	12.697	-0.005	98	677839	1200.0	1283.6	
122 Bromobenzene	156	12.953	12.941	0.012	97	1204988	30.0	30.0	
121 1,1,2,2-Tetrachloroethane	83	12.953	12.958	-0.005	94	1042084	30.0	28.8	
123 1,2,3-Trichloropropane	110	13.006	12.993	0.013	82	231112	30.0	27.3	
124 trans-1,4-Dichloro-2-buten	53	13.023	13.028	-0.005	71	257129	30.0	27.1	
125 N-Propylbenzene	120	13.075	13.080	-0.005	99	1211930	30.0	28.5	
126 2-Chlorotoluene	126	13.180	13.184	-0.004	95	938094	30.0	28.4	
127 1,3,5-Trimethylbenzene	105	13.302	13.289	0.013	95	3748579	30.0	28.5	
128 4-Chlorotoluene	126	13.319	13.306	0.013	99	1265565	30.0	29.7	
129 tert-Butylbenzene	119	13.685	13.672	0.013	95	4067161	30.0	28.5	
130 1,2,4-Trimethylbenzene	105	13.737	13.724	0.013	95	3557690	30.0	28.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	13.928	13.916	0.012	95	1080246	30.0	28.7	
132 1,3-Dichlorobenzene	146	14.050	14.037	0.013	96	1735503	30.0	28.5	
133 4-Isopropyltoluene	119	14.085	14.072	0.013	98	4713028	30.0	29.1	
134 1,4-Dichlorobenzene	146	14.137	14.142	-0.005	93	2812786	30.0	29.9	
137 n-Butylbenzene	91	14.520	14.507	0.013	99	4897561	30.0	28.8	
138 1,2-Dichlorobenzene	146	14.538	14.542	-0.004	96	1890736	30.0	29.6	
139 1,2-Dibromo-3-Chloropropan	157	15.304	15.326	-0.022	80	184811	30.0	30.9	
141 1,2,4-Trichlorobenzene	180	16.087	16.074	0.013	94	1320265	30.0	31.8	a
142 Hexachlorobutadiene	225	16.226	16.231	-0.005	97	1302417	30.0	29.1	
143 Naphthalene	128	16.296	16.301	-0.005	97	1488412	30.0	30.4	
144 1,2,3-Trichlorobenzene	180	16.540	16.527	0.013	93	1050261	30.0	29.8	a
S 151 1,2-Dichloroethene, Total	96				0		60.0	59.2	
S 145 Trihalomethanes, Total	1				0		120.0	122.9	
S 146 Xylenes, Total (URS)	1				0		60.0	61.1	
S 147 Total BTEX	1				0			151.5	
S 148 1,3-Dichloropropene, Total	1				0		60.0	60.7	
S 149 1,2-Dichloroethene, Total	1				0		60.0	59.2	
S 150 Xylenes, Total	106				0		60.0	61.1	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

a - User Assigned ID

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Main A_00022	Amount Added: 15.00	Units: uL
MV-Gas/Ket A_00033	Amount Added: 15.00	Units: uL
MV-2cleve+AVA_00009	Amount Added: 15.00	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2954.D

Injection Date: 28-May-2015 02:10:30

Instrument ID: VMS_H

Operator ID: BERGERB

Lims ID: ic

Worklist Smp#: 14

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

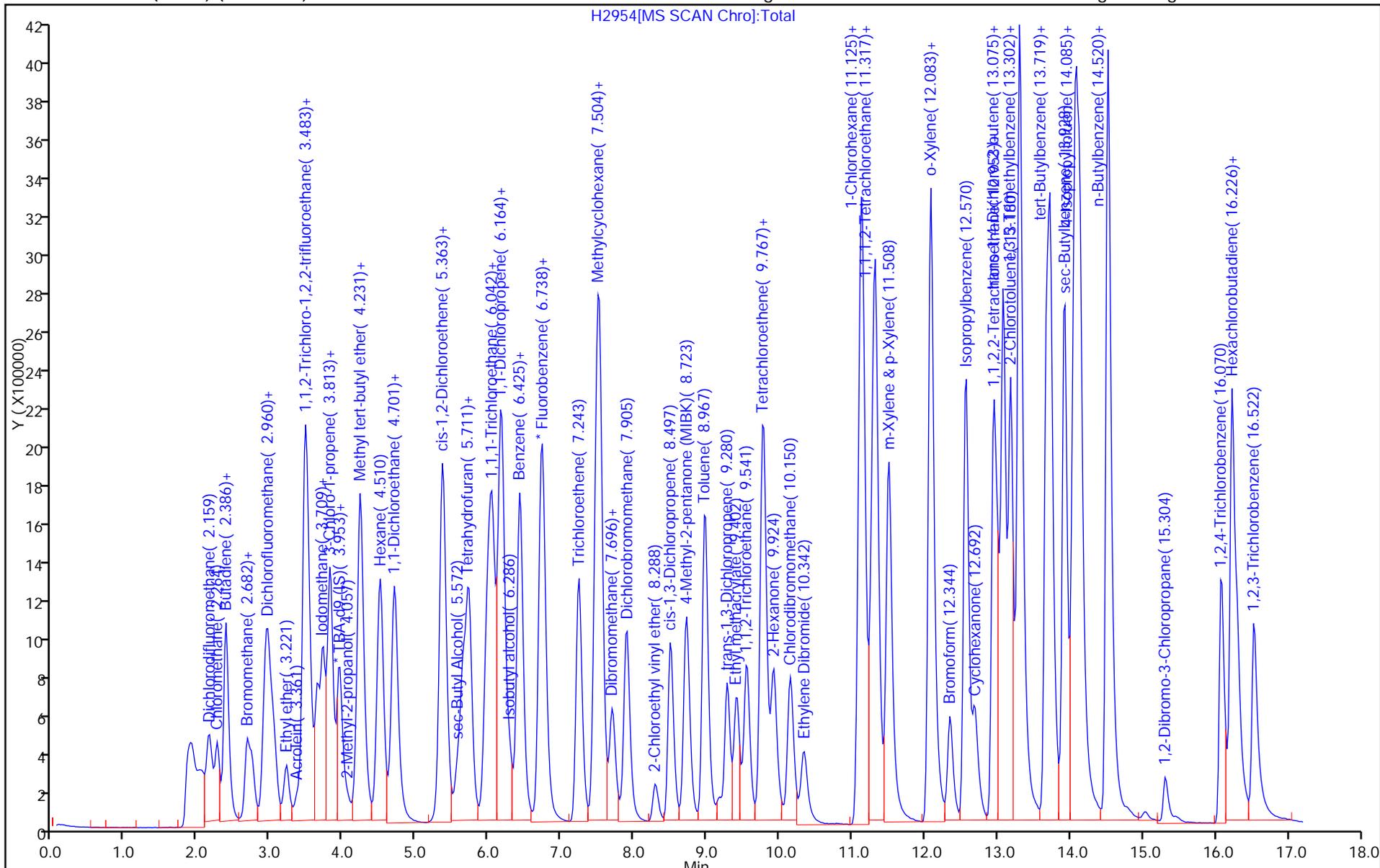
ALS Bottle#: 8

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



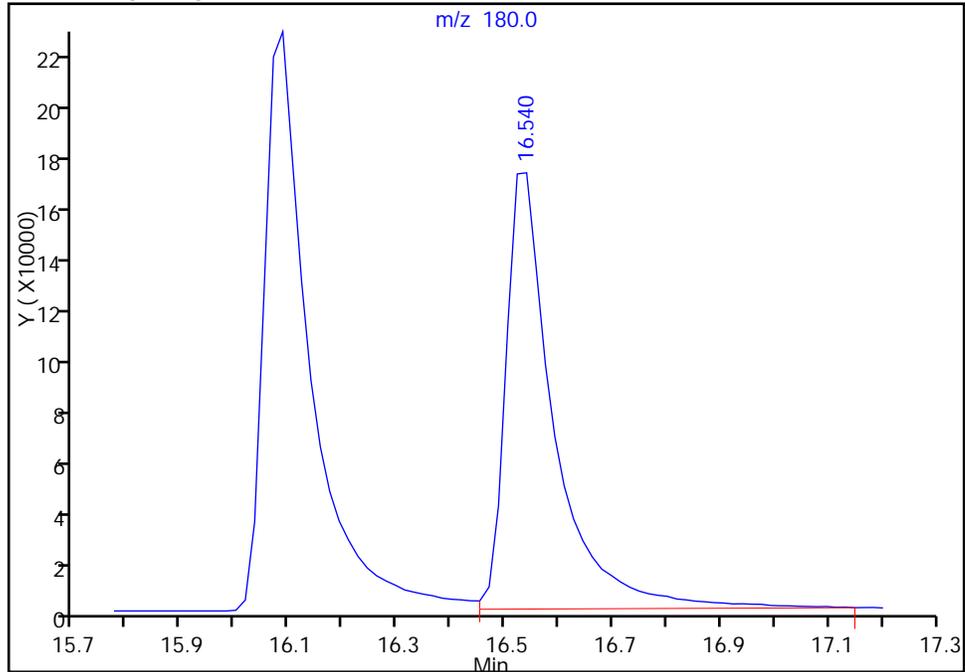
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2954.D
Injection Date: 28-May-2015 02:10:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 8 Worklist Smp#: 14
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

141 1,2,4-Trichlorobenzene, CAS: 120-82-1

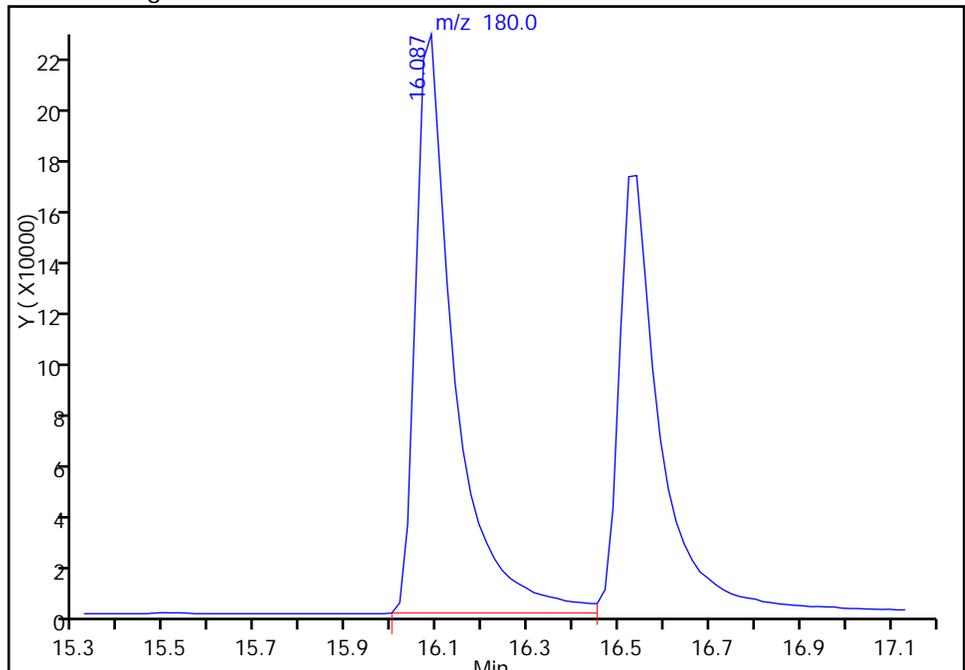
RT: 16.54
Area: 1050261
Amount: 26.073362
Amount Units: ug/l

Processing Integration Results



RT: 16.09
Area: 1320265
Amount: 31.762542
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:04:52
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

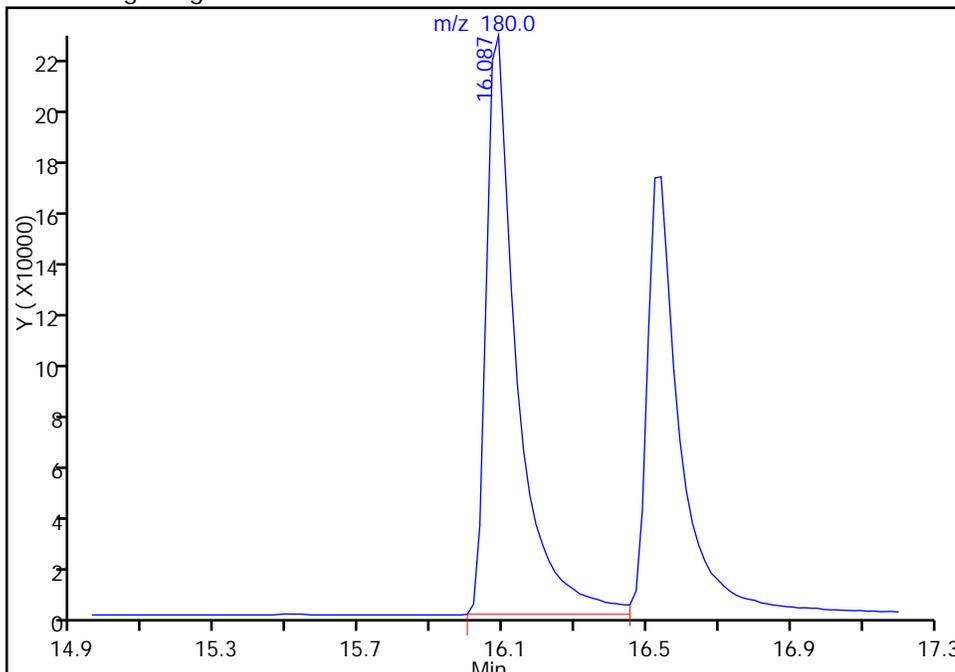
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2954.D
Injection Date: 28-May-2015 02:10:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 8 Worklist Smp#: 14
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

144 1,2,3-Trichlorobenzene, CAS: 87-61-6

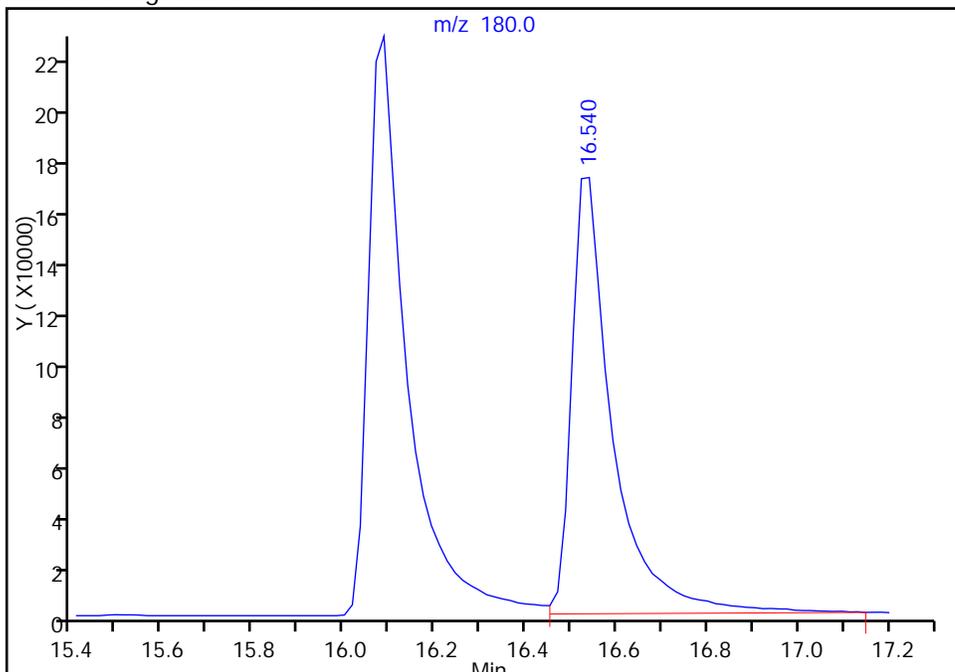
RT: 16.09
Area: 1320265
Amount: 36.130523
Amount Units: ug/l

Processing Integration Results



RT: 16.54
Area: 1050261
Amount: 29.789730
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:04:52
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2955.D
 Lims ID: ic
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 28-May-2015 02:33:30 ALS Bottle#: 9 Worklist Smp#: 15
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: BERGERB Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub99
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 02-Jun-2015 08:05:05 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK030

First Level Reviewer: wickhamt

Date: 28-May-2015 06:35:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.994	3.975	0.019	96	189827	250.0	250.0	
* 2 Fluorobenzene	96	6.779	6.760	0.019	97	1088738	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.114	11.113	0.001	91	232172	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.126	14.107	0.019	95	409472	12.5	12.5	
28 Dichlorodifluoromethane	85	2.166	2.164	0.002	98	3195464	60.0	60.4	
30 Chloromethane	50	2.270	2.269	0.001	98	2063538	60.0	60.9	
31 Butadiene	54	2.374	2.373	0.001	0	1655066	NC	NC	
32 Vinyl chloride	62	2.392	2.390	0.002	98	2088314	60.0	63.0	
35 Bromomethane	94	2.688	2.669	0.019	90	1677127	60.0	61.0	
36 Chloroethane	64	2.740	2.756	-0.016	100	1175653	60.0	58.3	
37 Dichlorofluoromethane	67	2.932	2.930	0.002	99	4651419	60.0	63.6	
38 Trichlorofluoromethane	101	2.984	2.982	0.002	100	4149850	60.0	63.5	
40 Ethyl ether	59	3.228	3.226	0.002	94	946871	60.0	54.8	
44 Acrolein	56	3.367	3.365	0.002	99	670949	599.9	563.7	
45 1,1-Dichloroethene	96	3.471	3.470	0.001	94	1917053	60.0	59.0	
46 1,1,2-Trichloro-1,2,2-trif	151	3.489	3.487	0.002	98	2715137	60.0	61.3	
47 Acetone	43	3.506	3.505	0.001	97	674850	240.0	199.2	
48 Iodomethane	142	3.645	3.644	0.001	99	4302574	60.0	58.8	
50 Carbon disulfide	76	3.715	3.731	-0.016	100	7290483	60.0	58.1	
52 3-Chloro-1-propene	41	3.819	3.818	0.001	91	4311947	60.0	57.1	
53 Methyl acetate	43	3.837	3.818	0.019	99	3085396	300.0	281.3	
54 Methylene Chloride	84	3.941	3.957	-0.016	98	1594879	60.0	57.5	
55 2-Methyl-2-propanol	59	4.081	4.062	0.019	96	530360	600.0	596.2	
57 Acrylonitrile	53	4.202	4.201	0.001	98	1661461	600.0	585.7	
58 trans-1,2-Dichloroethene	96	4.237	4.236	0.001	95	2163767	60.0	59.2	
56 Methyl tert-butyl ether	73	4.237	4.236	0.001	99	3405326	60.0	54.9	
59 Hexane	57	4.498	4.514	-0.016	95	4048497	60.0	65.0	
60 1,1-Dichloroethane	63	4.690	4.688	0.002	96	4517987	60.0	58.5	
61 Vinyl acetate	43	4.725	4.723	0.002	96	5740935	120.0	120.0	
65 cis-1,2-Dichloroethene	96	5.369	5.367	0.002	88	2172564	60.0	58.9	
67 2-Butanone (MEK)	43	5.369	5.367	0.002	95	1491424	240.0	238.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
66 2,2-Dichloropropane	77	5.369	5.385	-0.016	91	3826816	60.0	59.4	
71 sec-Butyl Alcohol	45	5.578	5.576	0.002	96	2256681	1800.0	1660.4	
73 Chlorobromomethane	128	5.647	5.663	-0.016	90	966337	60.0	59.7	
74 Tetrahydrofuran	42	5.717	5.716	0.001	95	502514	120.0	111.8	
75 Chloroform	83	5.735	5.733	0.001	97	4188258	60.0	58.1	
76 1,1,1-Trichloroethane	97	5.978	5.977	0.001	97	4170262	60.0	60.5	
77 Cyclohexane	56	6.048	6.046	0.002	97	4600736	60.0	60.5	
78 1,1-Dichloropropene	75	6.170	6.168	0.002	92	3571391	60.0	57.8	
79 Carbon tetrachloride	117	6.187	6.186	0.001	98	3967597	60.0	62.0	
80 Isobutyl alcohol	41	6.292	6.290	0.002	92	692521	1500.0	1454.7	
81 Benzene	78	6.431	6.429	0.002	97	6903972	60.0	60.5	
82 1,2-Dichloroethane	62	6.448	6.447	0.001	96	1932916	60.0	56.1	
84 n-Heptane	43	6.727	6.725	0.002	97	6112060	60.0	60.5	
86 Trichloroethene	95	7.249	7.230	0.019	97	2854202	60.0	61.5	
88 2-Pentanone	43	7.475	7.474	0.001	96	3833019	240.0	221.2	
89 Methylcyclohexane	55	7.510	7.491	0.019	91	4186466	60.0	61.8	
90 1,2-Dichloropropane	63	7.545	7.526	0.019	96	2580688	60.0	56.6	
92 Dibromomethane	93	7.702	7.700	0.002	95	1255247	60.0	55.3	
93 1,4-Dioxane	88	7.719	7.718	0.001	81	154119	1200.0	1139.8	
94 Dichlorobromomethane	83	7.893	7.892	0.001	98	3971466	60.0	59.9	
96 2-Chloroethyl vinyl ether	63	8.294	8.292	0.002	88	539090	60.0	66.2	
97 cis-1,3-Dichloropropene	75	8.503	8.501	0.002	91	3329041	60.0	60.9	
98 4-Methyl-2-pentanone (MIBK)	43	8.729	8.710	0.019	97	5332900	240.0	230.1	
99 Toluene	91	8.973	8.971	0.002	97	7745216	60.0	59.2	
100 trans-1,3-Dichloropropene	75	9.286	9.285	0.001	98	2363176	60.0	56.6	
101 Ethyl methacrylate	69	9.408	9.406	0.002	95	1969555	60.0	58.7	
102 1,1,2-Trichloroethane	97	9.547	9.546	0.001	92	1387307	60.0	53.0	
103 Tetrachloroethene	164	9.774	9.772	0.002	96	2470886	60.0	65.4	
104 1,3-Dichloropropane	76	9.791	9.789	0.002	97	2453301	60.0	57.6	
105 2-Hexanone	43	9.930	9.929	0.001	98	3687649	240.0	236.7	
108 Chlorodibromomethane	129	10.157	10.155	0.002	91	2532153	60.0	61.1	
109 Ethylene Dibromide	107	10.331	10.329	0.002	98	1794214	60.0	61.4	
110 1-Chlorohexane	91	11.114	11.113	0.001	90	3982029	60.0	62.4	
111 Chlorobenzene	112	11.149	11.147	0.002	90	5169847	60.0	62.1	
112 1,1,1,2-Tetrachloroethane	131	11.288	11.287	0.001	96	2510665	60.0	62.5	
113 Ethylbenzene	106	11.323	11.322	0.001	99	2674714	60.0	63.0	
114 m-Xylene & p-Xylene	106	11.514	11.496	0.018	98	3670522	60.0	63.6	
115 o-Xylene	106	12.072	12.070	0.002	98	3193493	60.0	63.1	
116 Styrene	104	12.089	12.088	0.001	93	5159432	60.0	63.0	
117 Bromoform	173	12.350	12.349	0.001	94	1411916	60.0	63.1	
118 Isopropylbenzene	105	12.559	12.558	0.001	96	10313550	60.0	58.8	
120 Cyclohexanone	55	12.698	12.697	0.001	97	1194077	2400.0	2315.6	
122 Bromobenzene	156	12.942	12.941	0.001	95	2406376	60.0	59.5	
121 1,1,2,2-Tetrachloroethane	83	12.959	12.958	0.001	94	1907715	60.0	52.2	
123 1,2,3-Trichloropropane	110	13.012	12.993	0.019	80	434508	60.0	50.9	
124 trans-1,4-Dichloro-2-buten	53	13.029	13.028	0.001	82	486849	60.0	50.8	
125 N-Propylbenzene	120	13.081	13.080	0.001	99	2510741	60.0	58.5	
126 2-Chlorotoluene	126	13.186	13.184	0.002	95	1941695	60.0	58.3	
127 1,3,5-Trimethylbenzene	105	13.308	13.289	0.019	95	7739677	60.0	58.3	
128 4-Chlorotoluene	126	13.325	13.306	0.019	98	2561711	60.0	59.6	
129 tert-Butylbenzene	119	13.673	13.672	0.001	95	8377315	60.0	58.2	
130 1,2,4-Trimethylbenzene	105	13.726	13.724	0.002	95	7231176	60.0	57.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	13.917	13.916	0.001	95	2264838	60.0	59.6	
132 1,3-Dichlorobenzene	146	14.039	14.037	0.002	97	3660427	60.0	59.6	
133 4-Isopropyltoluene	119	14.091	14.072	0.019	98	9779012	60.0	59.8	
134 1,4-Dichlorobenzene	146	14.143	14.142	0.001	95	5532730	60.0	58.3	
137 n-Butylbenzene	91	14.509	14.507	0.002	99	10123491	60.0	59.0	
138 1,2-Dichlorobenzene	146	14.544	14.542	0.002	97	3820213	60.0	59.2	
139 1,2-Dibromo-3-Chloropropan	157	15.310	15.326	-0.016	82	349881	60.0	58.1	
141 1,2,4-Trichlorobenzene	180	16.076	16.074	0.002	94	2675409	60.0	61.7	a
142 Hexachlorobutadiene	225	16.232	16.231	0.001	97	2743229	60.0	60.7	
143 Naphthalene	128	16.302	16.301	0.001	97	2893523	60.0	58.7	
144 1,2,3-Trichlorobenzene	180	16.528	16.527	0.001	93	2079040	60.0	60.9	a
S 151 1,2-Dichloroethene, Total	96				0		120.0	118.1	
S 145 Trihalomethanes, Total	1				0		240.0	242.2	
S 146 Xylenes, Total (URS)	1				0		120.0	126.7	
S 147 Total BTEX	1				0			309.5	
S 148 1,3-Dichloropropene, Total	1				0		120.0	117.5	
S 149 1,2-Dichloroethene, Total	1				0		120.0	118.1	
S 150 Xylenes, Total	106				0		120.0	126.7	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

a - User Assigned ID

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Main A_00022	Amount Added: 30.00	Units: uL
MV-Gas/Ket A_00033	Amount Added: 30.00	Units: uL
MV-2cleve+AVA_00009	Amount Added: 30.00	Units: uL

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2955.D

Injection Date: 28-May-2015 02:33:30

Instrument ID: VMS_H

Operator ID: BERGERB

Lims ID: ic

Worklist Smp#: 15

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

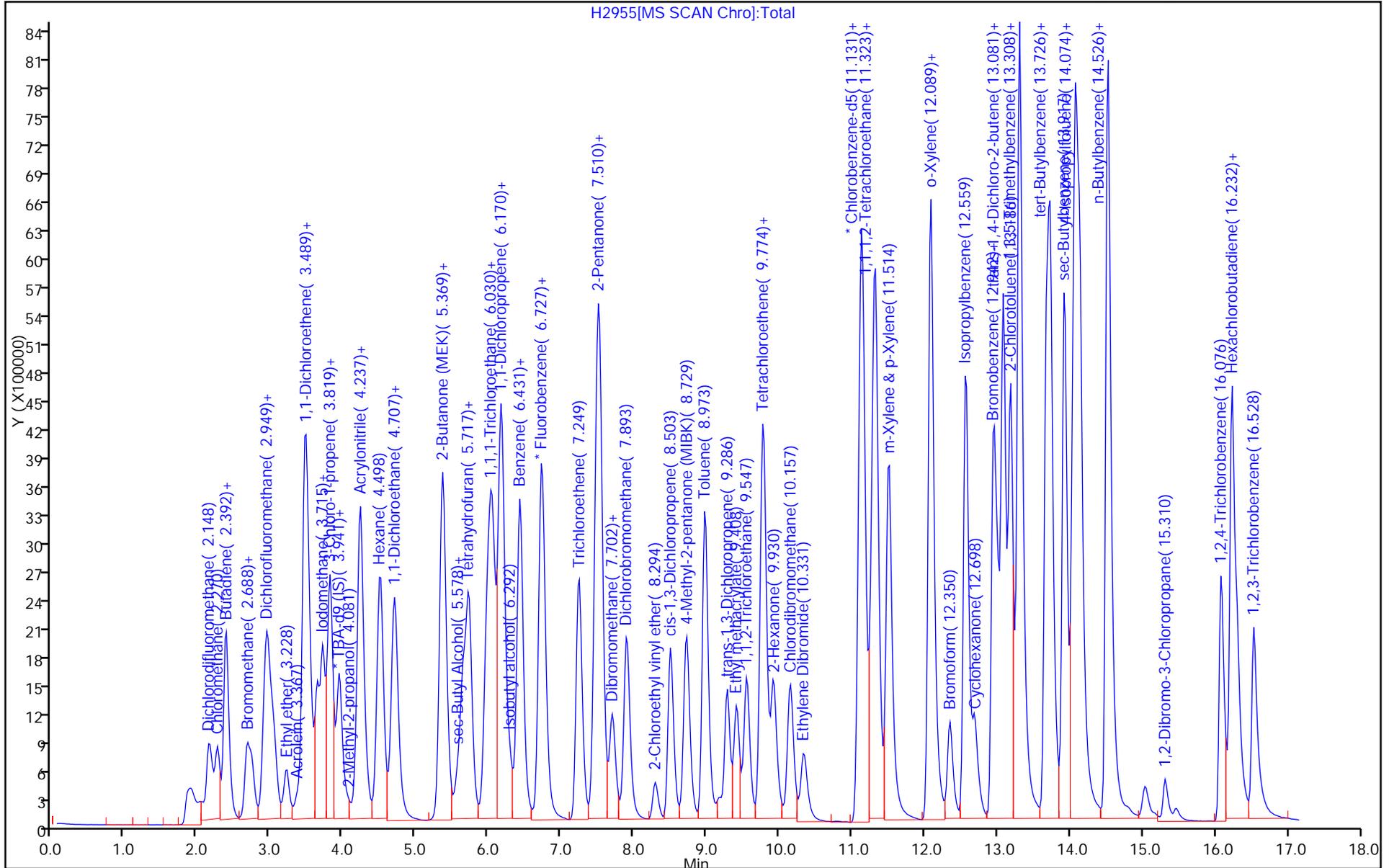
ALS Bottle#: 9

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



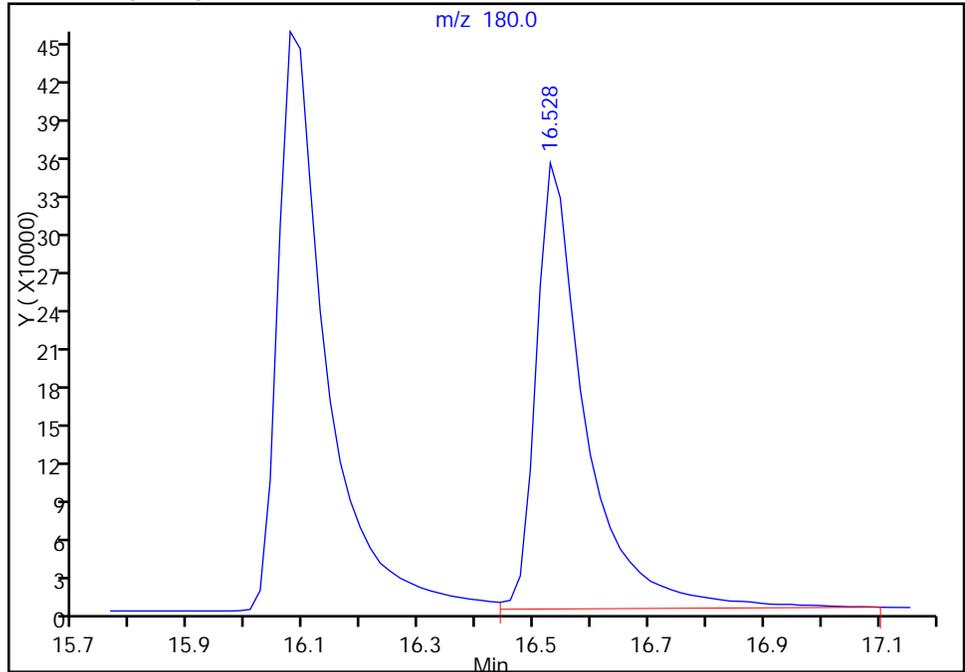
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2955.D
Injection Date: 28-May-2015 02:33:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 9 Worklist Smp#: 15
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

141 1,2,4-Trichlorobenzene, CAS: 120-82-1

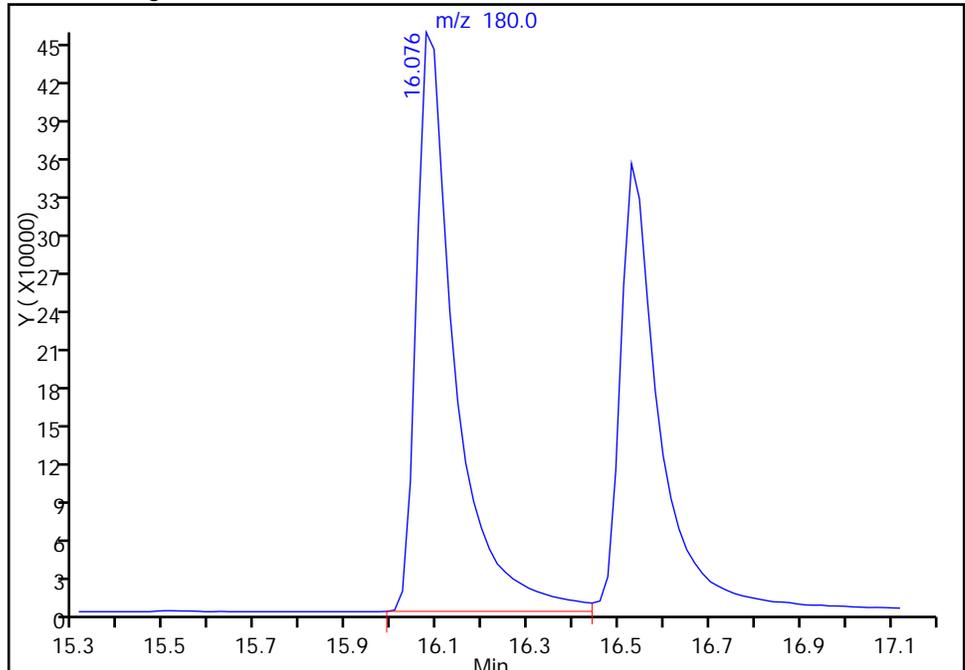
RT: 16.53
Area: 2079040
Amount: 49.604181
Amount Units: ug/l

Processing Integration Results



RT: 16.08
Area: 2675409
Amount: 61.741363
Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:05:05
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

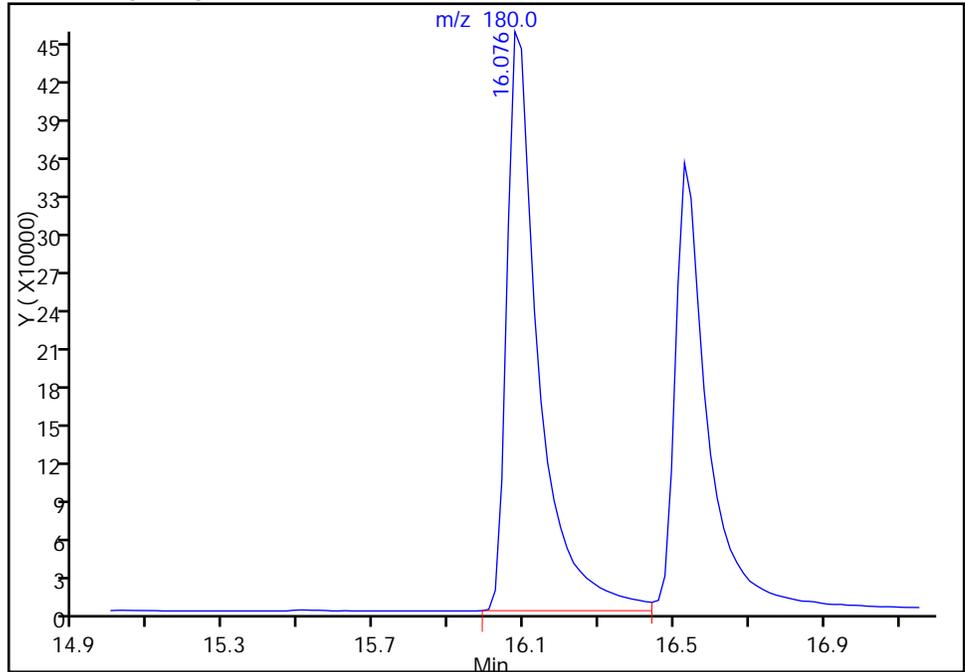
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2955.D
 Injection Date: 28-May-2015 02:33:30 Instrument ID: VMS_H
 Lims ID: ic
 Client ID:
 Operator ID: BERGERB ALS Bottle#: 9 Worklist Smp#: 15
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
 Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

144 1,2,3-Trichlorobenzene, CAS: 87-61-6

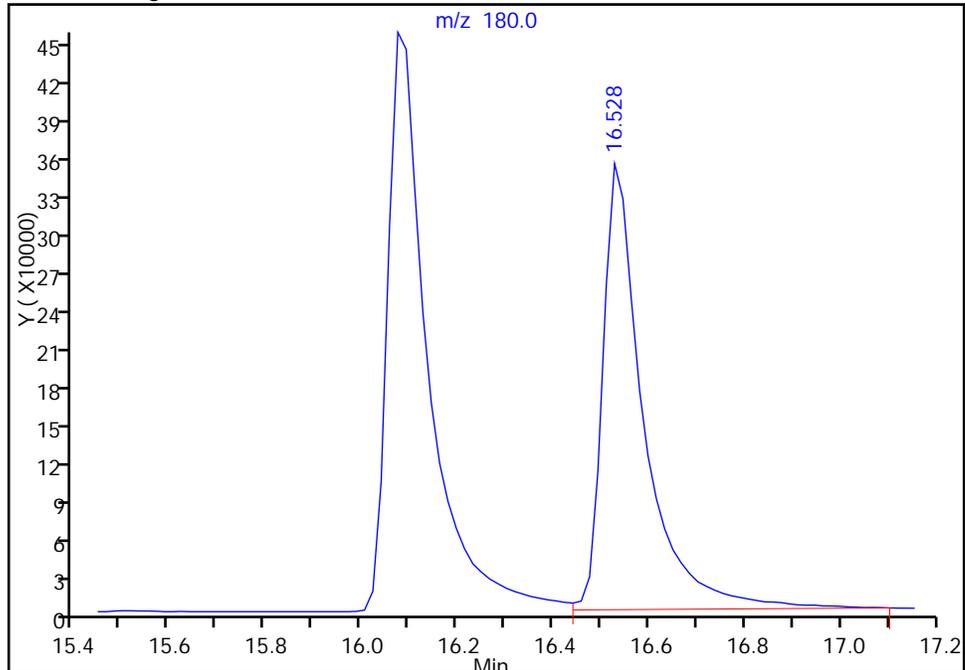
RT: 16.08
 Area: 2675409
 Amount: 75.259408
 Amount Units: ug/l

Processing Integration Results



RT: 16.53
 Area: 2079040
 Amount: 60.916685
 Amount Units: ug/l

Manual Integration Results



Reviewer: moanm, 02-Jun-2015 08:05:05
 Audit Action: Assigned Compound ID
 Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2957.D
 Lims ID: ic
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 28-May-2015 03:18:30 ALS Bottle#: 11 Worklist Smp#: 16
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: BERGERB Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub99
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 28-May-2015 07:24:17 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: wickhamt Date: 28-May-2015 06:47:23

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.973	3.975	-0.002	99	223130	250.0	250.0	
* 2 Fluorobenzene	96	6.759	6.760	-0.001	97	1100257	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.111	11.113	-0.002	93	260705	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.123	14.107	0.016	98	399090	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.923	5.924	-0.001	93	62835	1.00	1.13	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	6.341	6.342	-0.001	83	33456	1.00	1.09	
\$ 10 Toluene-d8 (Surr)	98	8.883	8.883	-0.001	95	134275	1.00	1.06	
\$ 11 4-Bromofluorobenzene (Surr	95	12.765	12.766	-0.001	81	81659	1.00	1.20	
34 Ethylene oxide	43	2.650	2.633	0.017	99	108123	200.0	200.2	
39 Ethanol	45		3.156				ND	ND	
43 Propene oxide	58	3.311	3.295	0.016	95	106179	50.0	51.5	
49 Isopropyl alcohol	45	3.642	3.626	0.016	36	10503	10.0	13.7	
51 Acetonitrile	41	3.799	3.817	-0.018	71	16071	12.5	15.3	M
62 Isopropyl ether	87	4.756	4.757	-0.001	99	33342	1.25	1.31	
63 2-Chloro-1,3-butadiene	53	4.791	4.792	-0.001	92	61627	1.00	1.06	
64 Tert-butyl ethyl ether	59	5.174	5.175	-0.001	99	153824	1.25	1.49	
69 Ethyl acetate	43	5.435	5.419	0.016	95	30591	2.00	2.19	
70 Propionitrile	54	5.470	5.454	0.016	46	13113	12.5	13.2	
72 Methacrylonitrile	41	5.627	5.610	0.017	97	88804	10.0	10.2	
83 Tert-amyl methyl ether	73	6.550	6.551	0.000	97	108283	1.25	1.33	
85 n-Butanol	56	7.159	7.160	-0.001	84	6625	25.0	22.8	
87 Ethyl acrylate	55	7.368	7.351	0.017	0	20390	NC	NC	
91 Methyl methacrylate	100	7.681	7.665	0.016	94	11608	2.00	2.38	
95 2-Nitropropane	41	8.186	8.187	-0.001	96	7254	2.00	2.01	
107 Tetrahydrothiophene	60	10.136	10.119	0.017	59	11131	1.00	0.99	
119 cis-1,4-Dichloro-2-butene	53	12.660	12.661	-0.001	82	5565	1.00	0.7918	
135 1,2,3-Trimethylbenzene	105	14.192	14.193	-0.001	97	111761	1.00	1.05	
140 1,3,5-Trichlorobenzene	180	15.516	15.516	0.000	95	54832	1.00	1.04	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Supp A_00011	Amount Added: 0.50	Units: uL
MV-ARCH SS A_00042	Amount Added: 0.08	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2957.D

Injection Date: 28-May-2015 03:18:30

Instrument ID: VMS_H

Operator ID: BERGERB

Lims ID: ic

Worklist Smp#: 16

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

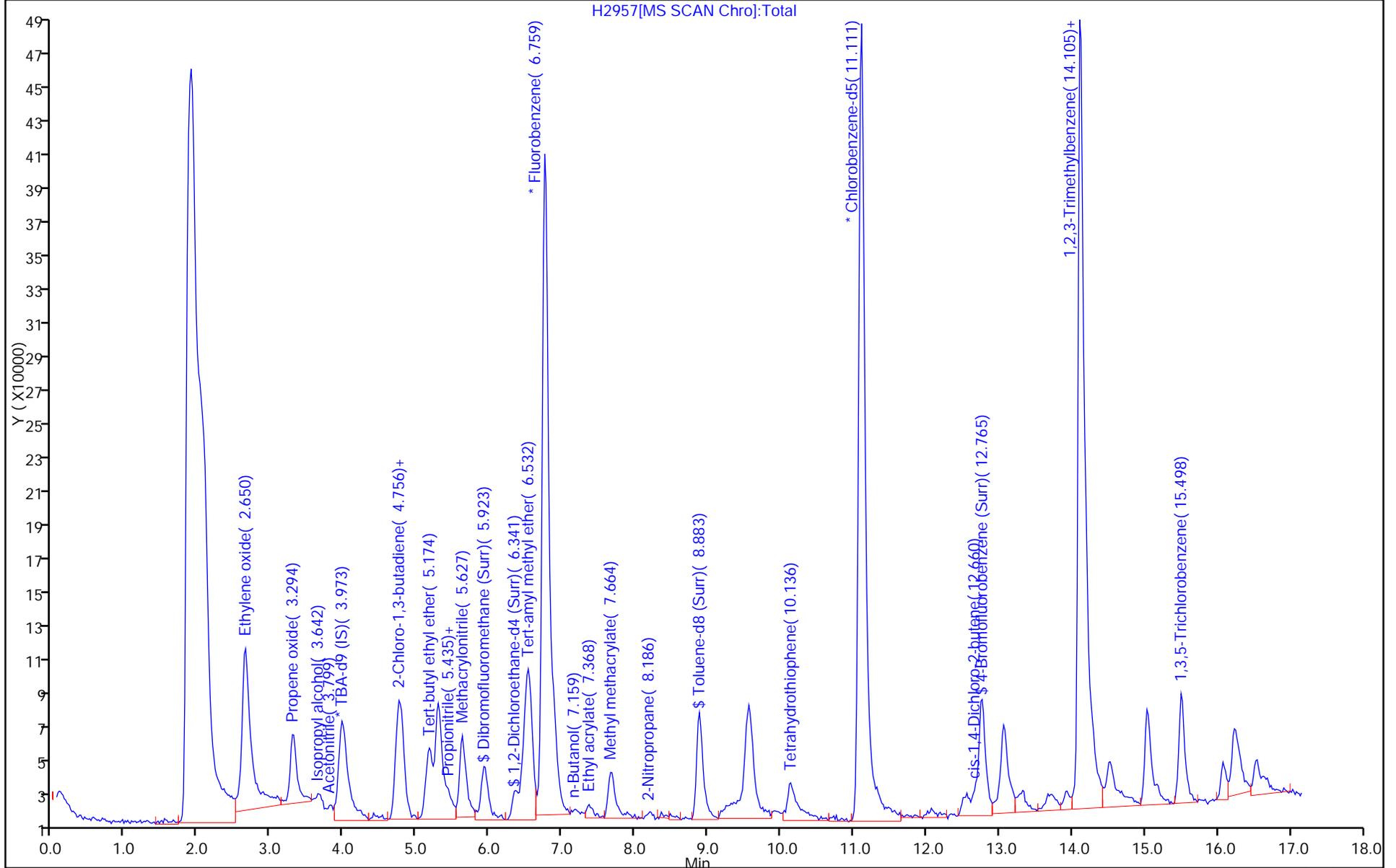
ALS Bottle#: 11

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



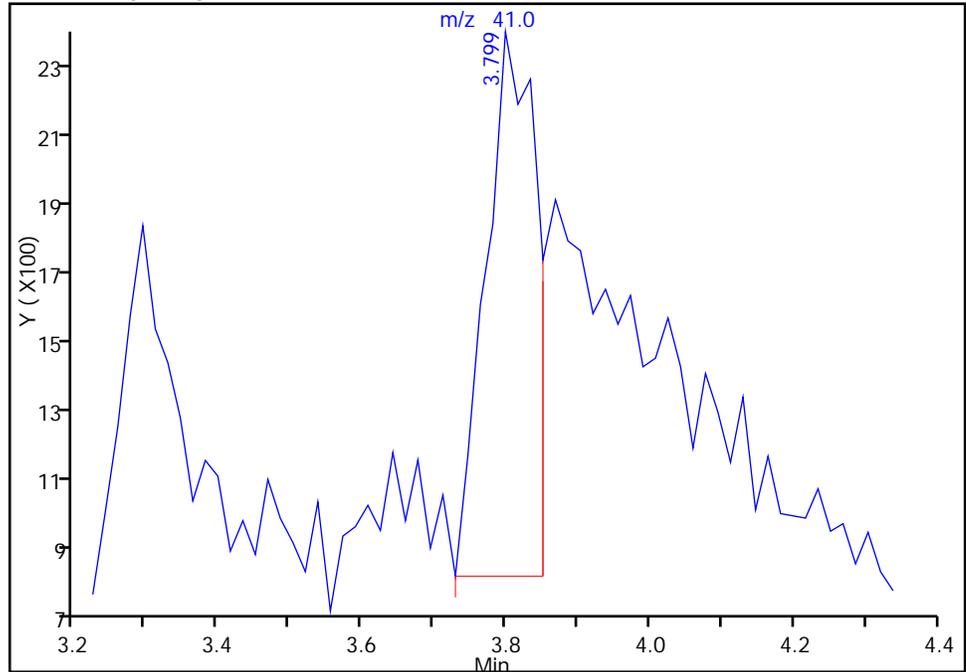
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2957.D
Injection Date: 28-May-2015 03:18:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 11 Worklist Smp#: 16
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

51 Acetonitrile, CAS: 75-05-8

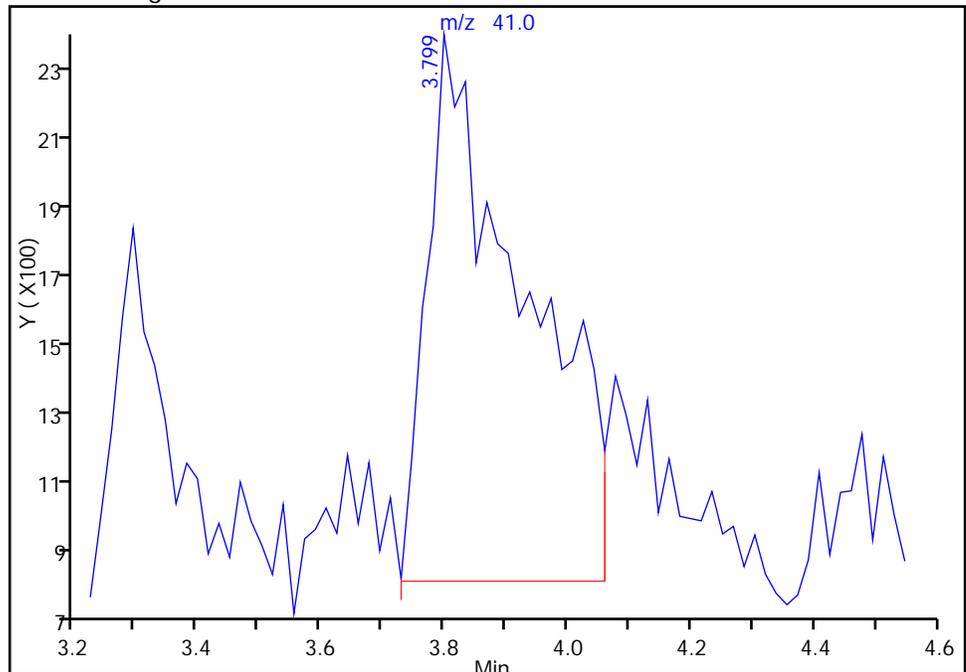
RT: 3.80
Area: 7181
Amount: 10.938454
Amount Units: ug/l

Processing Integration Results



RT: 3.80
Area: 16071
Amount: 15.289027
Amount Units: ug/l

Manual Integration Results



Reviewer: wickhamt, 28-May-2015 06:50:57
Audit Action: Assigned New Baseline
Audit Reason: Split Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2958.D
 Lims ID: ic
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 28-May-2015 03:40:30 ALS Bottle#: 12 Worklist Smp#: 17
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: BERGERB Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub99
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 28-May-2015 07:24:18 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: wickhamt

Date: 28-May-2015 06:47:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.987	3.975	0.012	99	199012	250.0	250.0	
* 2 Fluorobenzene	96	6.755	6.760	-0.005	97	1109205	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.108	11.113	-0.005	93	253043	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.120	14.107	0.013	98	394410	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.920	5.924	-0.004	93	118288	2.00	2.11	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	6.355	6.342	0.013	83	66325	2.00	2.14	
\$ 10 Toluene-d8 (Surr)	98	8.879	8.883	-0.004	94	255016	2.00	2.07	
\$ 11 4-Bromofluorobenzene (Surr	95	12.762	12.766	-0.004	81	142343	2.00	2.11	
34 Ethylene oxide	43	2.647	2.633	0.014	99	206562	400.0	379.3	
39 Ethanol	45	3.169	3.156	0.013	45	9004	100.0	104.6	M
43 Propene oxide	58	3.308	3.295	0.013	95	198005	100.0	95.2	
49 Isopropyl alcohol	45	3.639	3.626	0.013	30	10028	20.0	12.6	
51 Acetonitrile	41	3.848	3.817	0.031	94	19392	25.0	20.5	M
62 Isopropyl ether	87	4.753	4.757	-0.004	99	64479	2.50	2.51	
63 2-Chloro-1,3-butadiene	53	4.788	4.792	-0.004	92	115265	2.00	1.97	
64 Tert-butyl ethyl ether	59	5.171	5.175	-0.004	99	264567	2.50	2.54	
69 Ethyl acetate	43	5.415	5.419	-0.004	96	50291	4.00	3.57	
70 Propionitrile	54	5.450	5.454	-0.004	32	23893	25.0	23.8	
72 Methacrylonitrile	41	5.624	5.610	0.014	97	173321	20.0	19.7	
83 Tert-amyl methyl ether	73	6.564	6.551	0.014	96	203262	2.50	2.48	
85 n-Butanol	56	7.156	7.160	-0.004	91	13826	50.0	47.2	
87 Ethyl acrylate	55	7.347	7.351	-0.004	0	47247	NC	NC	
91 Methyl methacrylate	100	7.661	7.665	-0.004	95	20939	4.00	4.26	
95 2-Nitropropane	41	8.200	8.187	0.013	96	13786	4.00	3.80	
107 Tetrahydrothiophene	60	10.133	10.119	0.014	59	22027	2.00	2.02	
119 cis-1,4-Dichloro-2-butene	53	12.657	12.661	-0.004	94	15634	2.00	2.25	
135 1,2,3-Trimethylbenzene	105	14.189	14.193	-0.004	97	209412	2.00	1.98	
140 1,3,5-Trichlorobenzene	180	15.512	15.516	-0.004	96	105315	2.00	2.03	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Supp A_00011	Amount Added: 1.00	Units: uL
MV-ARCH SS A_00042	Amount Added: 0.16	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2958.D

Injection Date: 28-May-2015 03:40:30

Instrument ID: VMS_H

Operator ID: BERGERB

Lims ID: ic

Worklist Smp#: 17

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

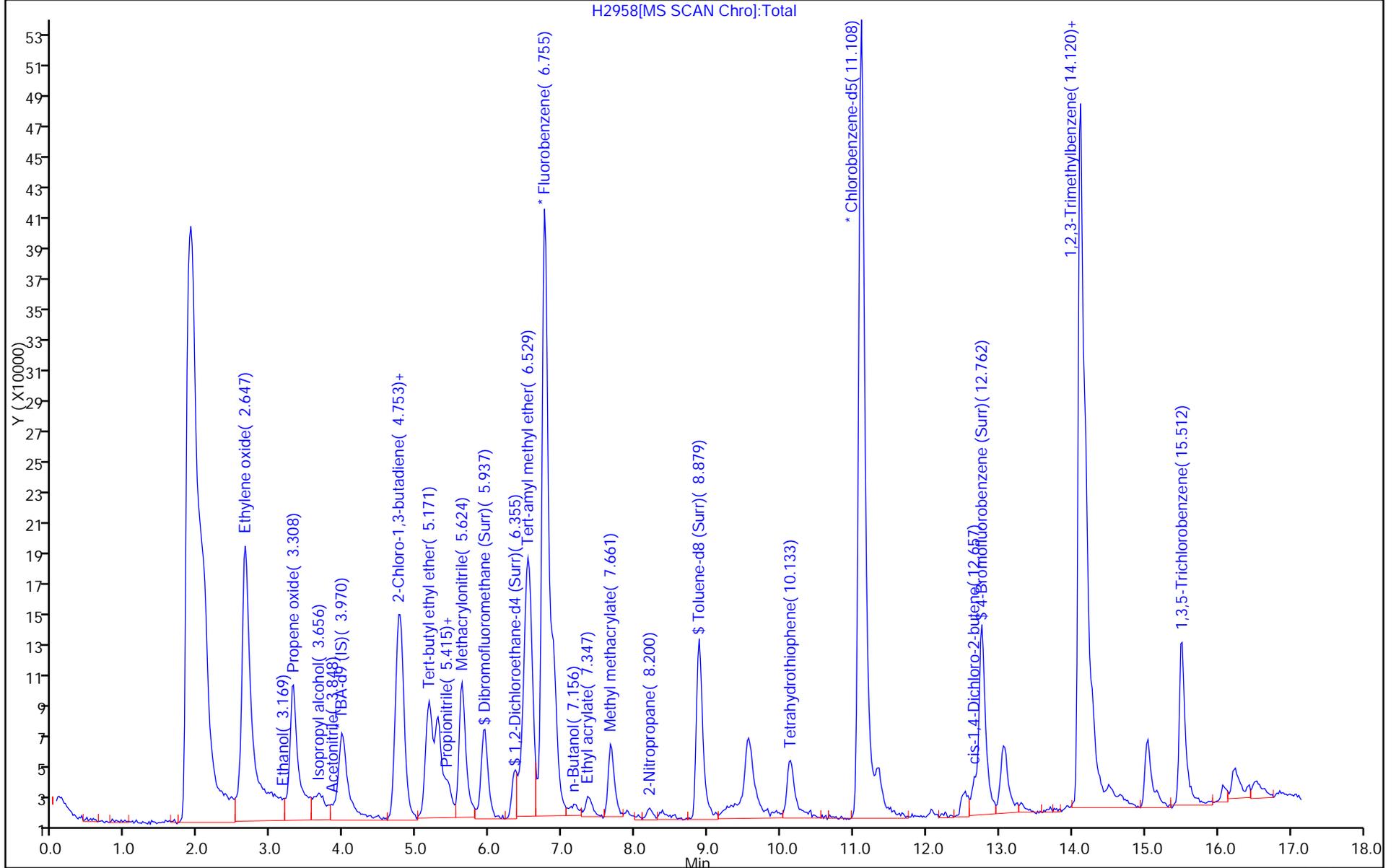
ALS Bottle#: 12

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



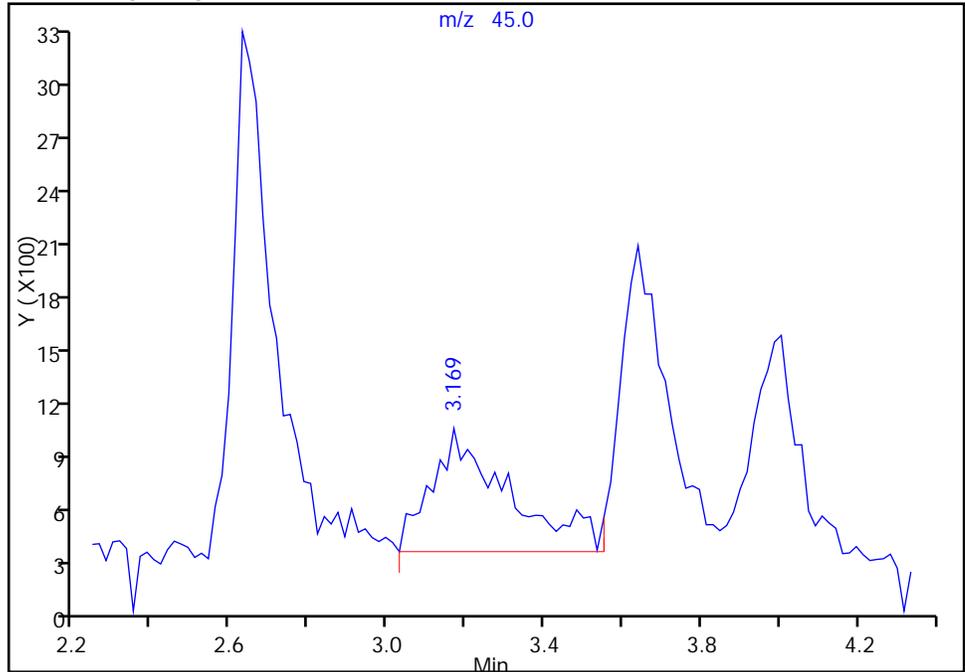
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2958.D
Injection Date: 28-May-2015 03:40:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 12 Worklist Smp#: 17
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

39 Ethanol, CAS: 64-17-5

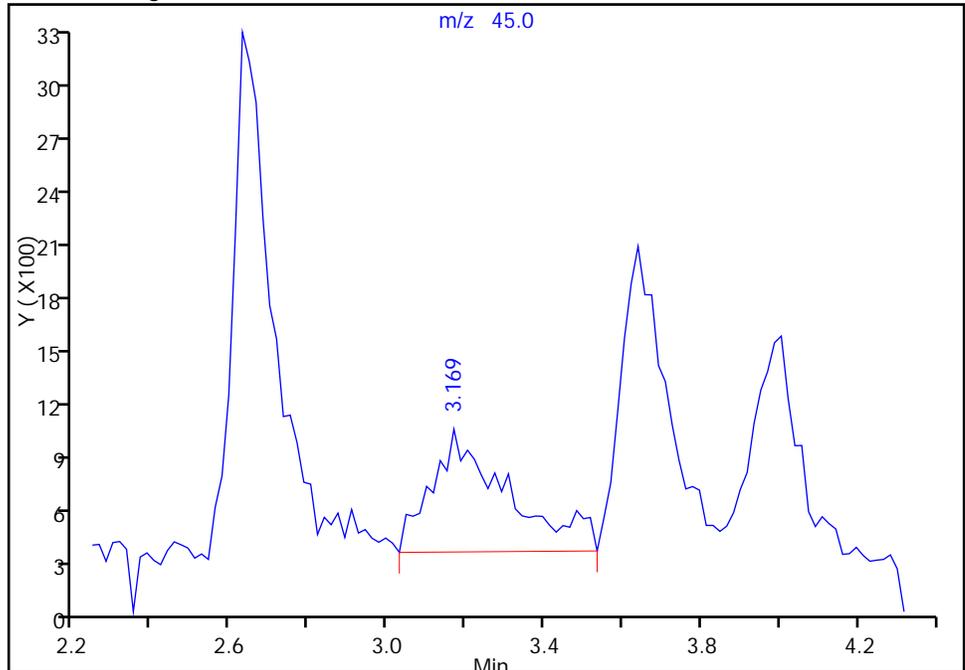
RT: 3.17
Area: 9329
Amount: 131.4277
Amount Units: ug/l

Processing Integration Results



RT: 3.17
Area: 9004
Amount: 104.5561
Amount Units: ug/l

Manual Integration Results



Reviewer: wickhamt, 28-May-2015 06:52:50
Audit Action: Manually Integrated
Audit Reason: Shouldering

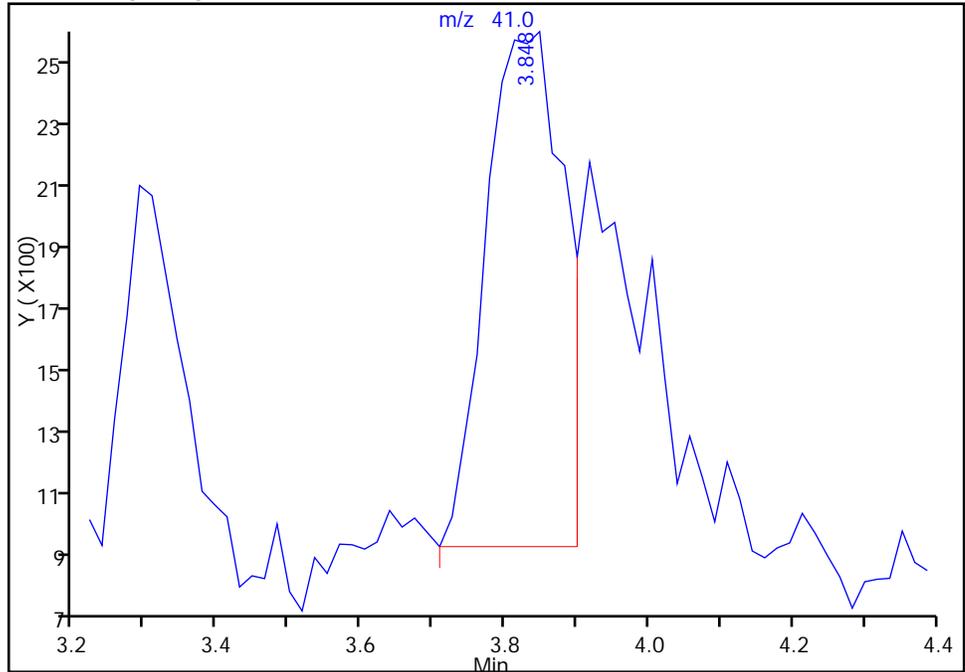
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2958.D
Injection Date: 28-May-2015 03:40:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 12 Worklist Smp#: 17
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

51 Acetonitrile, CAS: 75-05-8

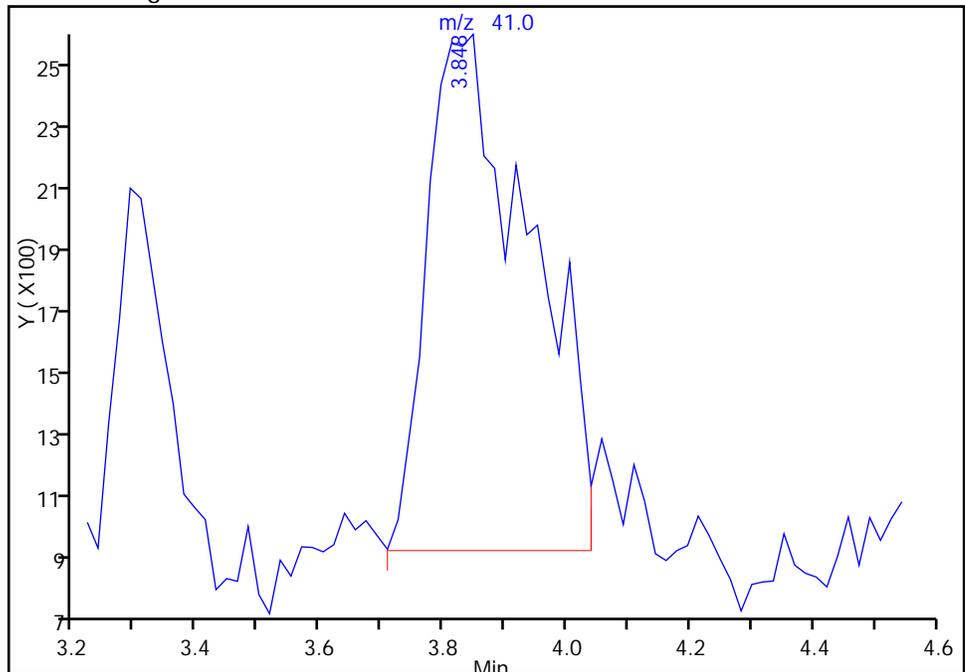
RT: 3.85
Area: 12617
Amount: 20.460101
Amount Units: ug/l

Processing Integration Results



RT: 3.85
Area: 19392
Amount: 20.495260
Amount Units: ug/l

Manual Integration Results



Reviewer: wickhamt, 28-May-2015 06:50:33
Audit Action: Assigned New Baseline
Audit Reason: Split Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2959.D
 Lims ID: ic
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 28-May-2015 04:03:30 ALS Bottle#: 13 Worklist Smp#: 18
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: BERGERB Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub99
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 28-May-2015 07:24:19 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: wickhamt Date: 28-May-2015 06:48:23

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.988	3.975	0.013	99	193876	250.0	250.0	
* 2 Fluorobenzene	96	6.756	6.760	-0.004	97	1102662	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.108	11.113	-0.005	92	247579	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.120	14.107	0.013	97	386847	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.920	5.924	-0.004	92	266180	5.00	4.78	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	6.338	6.342	-0.004	83	149069	5.00	4.83	
\$ 10 Toluene-d8 (Surr)	98	8.880	8.883	-0.003	95	582345	5.00	4.82	
\$ 11 4-Bromofluorobenzene (Surr	95	12.762	12.766	-0.004	81	317561	5.00	4.80	
34 Ethylene oxide	43	2.647	2.633	0.014	99	544994	1000.0	1006.8	
39 Ethanol	45	3.187	3.156	0.031	95	15621	250.0	216.2	M
43 Propene oxide	58	3.309	3.295	0.014	95	506300	250.0	244.9	
49 Isopropyl alcohol	45	3.657	3.626	0.031	95	24803	50.0	42.1	
51 Acetonitrile	41	3.796	3.817	-0.021	100	43880	62.5	60.9	
62 Isopropyl ether	87	4.736	4.757	-0.021	98	158619	6.25	6.21	
63 2-Chloro-1,3-butadiene	53	4.788	4.792	-0.004	92	294842	5.00	5.07	
64 Tert-butyl ethyl ether	59	5.171	5.175	-0.004	99	620642	6.25	6.00	
69 Ethyl acetate	43	5.415	5.419	-0.004	99	133601	10.0	9.55	
70 Propionitrile	54	5.450	5.454	-0.004	96	61262	62.5	61.5	
72 Methacrylonitrile	41	5.624	5.610	0.014	97	426154	50.0	48.8	
83 Tert-amyl methyl ether	73	6.547	6.551	-0.003	97	509379	6.25	6.25	
85 n-Butanol	56	7.156	7.160	-0.004	90	32899	125.0	113.0	
87 Ethyl acrylate	55	7.365	7.351	0.014	0	115703	NC	NC	
91 Methyl methacrylate	100	7.678	7.665	0.013	95	46363	10.0	9.48	
95 2-Nitropropane	41	8.201	8.187	0.014	96	34617	10.0	9.59	
107 Tetrahydrothiophene	60	10.133	10.119	0.014	59	52424	5.00	4.92	
119 cis-1,4-Dichloro-2-butene	53	12.640	12.661	-0.021	93	35995	5.00	5.28	
135 1,2,3-Trimethylbenzene	105	14.190	14.193	-0.003	98	519679	5.00	5.02	
140 1,3,5-Trichlorobenzene	180	15.513	15.516	-0.003	96	251792	5.00	4.94	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Supp A_00011	Amount Added: 2.50	Units: uL
MV-ARCH SS A_00042	Amount Added: 0.40	Units: uL

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2959.D

Injection Date: 28-May-2015 04:03:30

Instrument ID: VMS_H

Operator ID: BERGERB

Lims ID: ic

Worklist Smp#: 18

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

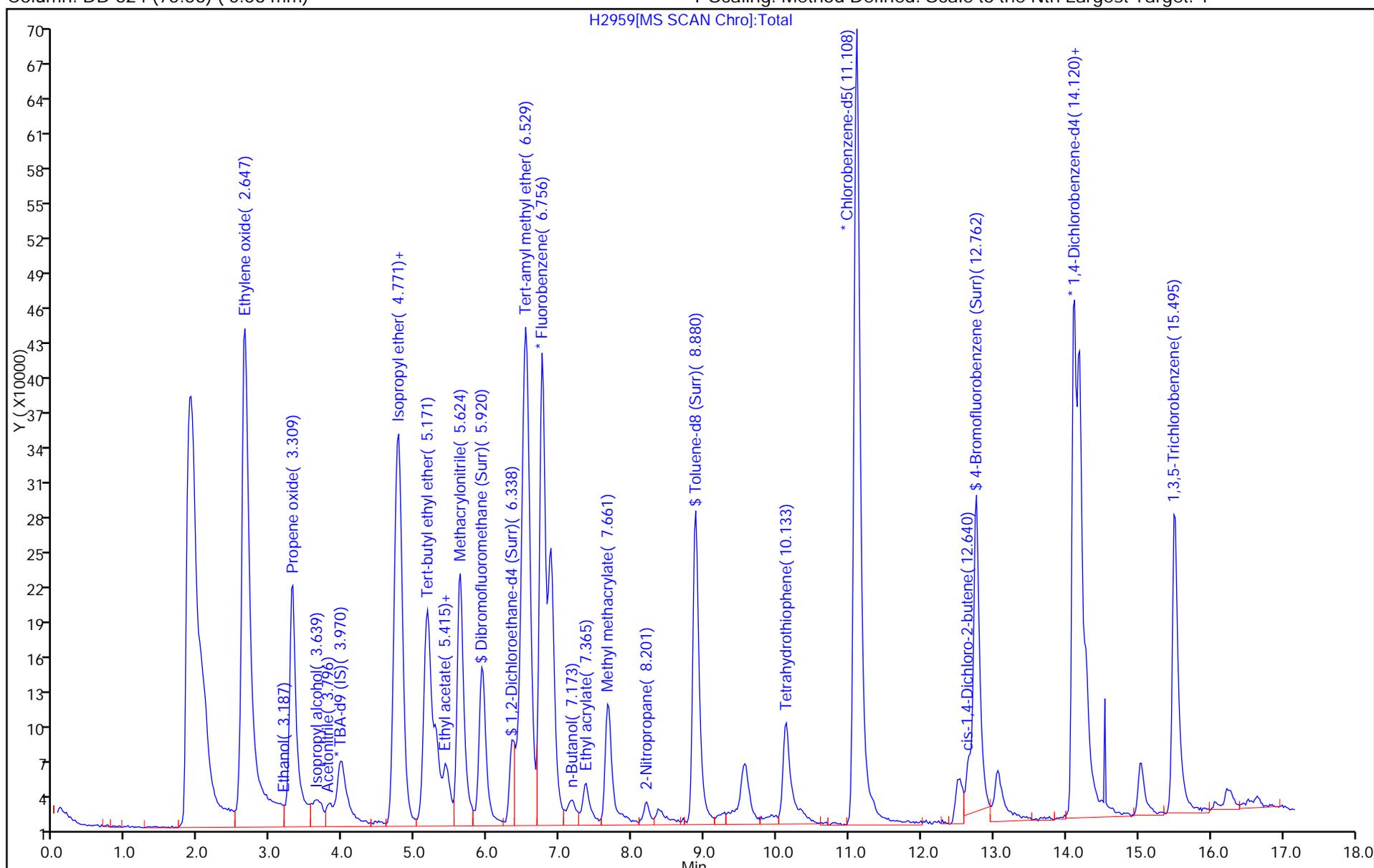
ALS Bottle#: 13

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



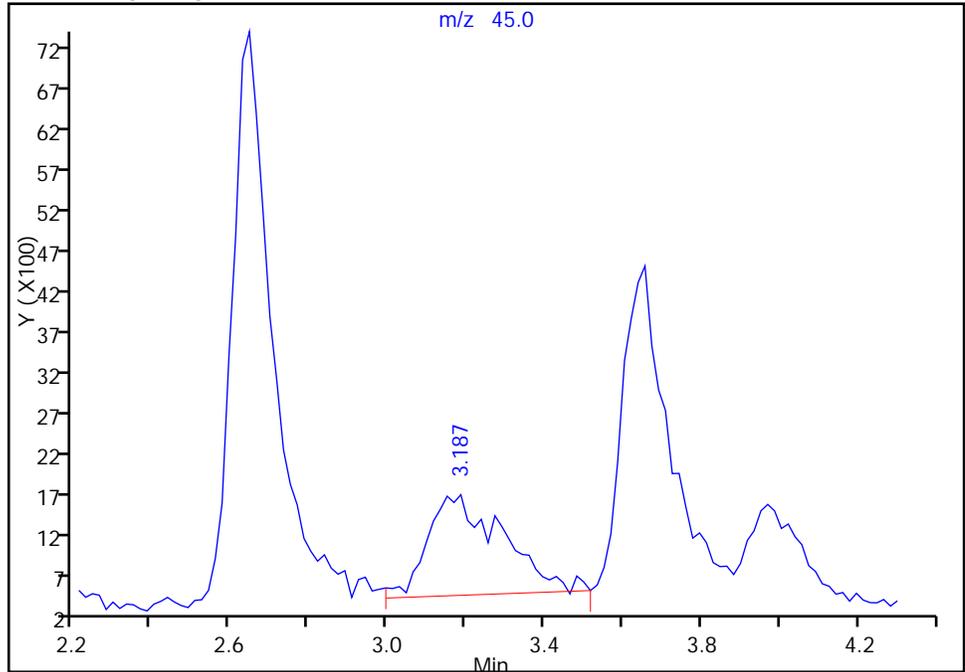
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2959.D
Injection Date: 28-May-2015 04:03:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 13 Worklist Smp#: 18
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

39 Ethanol, CAS: 64-17-5

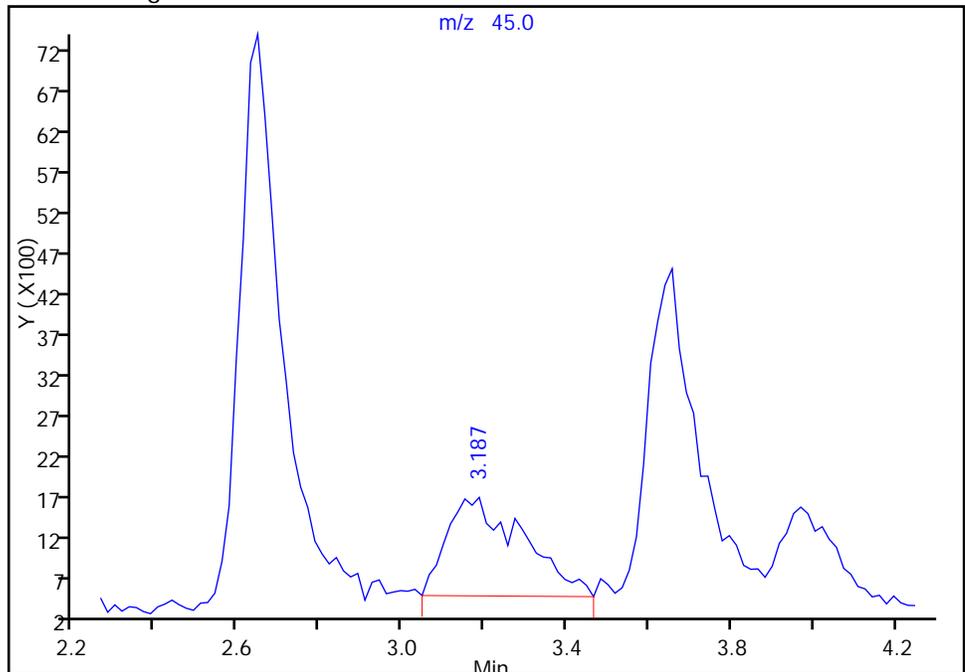
RT: 3.19
Area: 16621
Amount: 245.7684
Amount Units: ug/l

Processing Integration Results



RT: 3.19
Area: 15621
Amount: 216.1921
Amount Units: ug/l

Manual Integration Results



Reviewer: wickhamt, 28-May-2015 06:52:31
Audit Action: Manually Integrated
Audit Reason: Shouldering

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2960.D
 Lims ID: icis
 Client ID:
 Sample Type: ICIS Calib Level: 5
 Inject. Date: 28-May-2015 04:25:30 ALS Bottle#: 14 Worklist Smp#: 19
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: icis
 Operator ID: BERGERB Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub99
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 28-May-2015 07:24:20 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: wickhamt Date: 28-May-2015 06:46:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.974	3.974	0.000	100	211144	250.0	250.0	
* 2 Fluorobenzene	96	6.759	6.759	0.000	98	1108417	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.094	11.094	0.000	93	256513	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.106	14.106	0.000	98	390191	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.924	5.924	0.000	93	546393	10.0	9.76	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	6.342	6.342	0.000	83	308839	10.0	9.96	
\$ 10 Toluene-d8 (Surr)	98	8.883	8.883	0.000	95	1177961	10.0	9.41	
\$ 11 4-Bromofluorobenzene (Surr	95	12.766	12.766	0.000	81	618356	10.0	9.26	
34 Ethylene oxide	43	2.633	2.633	0.000	99	1164009	2000.0	2139.2	
39 Ethanol	45	3.156	3.156	0.000	91	33859	500.0	518.5	
43 Propene oxide	58	3.295	3.295	0.000	95	1107446	500.0	533.0	
49 Isopropyl alcohol	45	3.626	3.626	0.000	95	62543	100.0	116.5	
51 Acetonitrile	41	3.817	3.817	0.000	99	81258	125.0	121.5	
62 Isopropyl ether	87	4.757	4.757	0.000	98	324780	12.5	12.7	
63 2-Chloro-1,3-butadiene	53	4.792	4.792	0.000	92	570915	10.0	9.76	
64 Tert-butyl ethyl ether	59	5.175	5.175	0.000	99	1272766	12.5	12.2	
69 Ethyl acetate	43	5.419	5.419	0.000	99	308502	20.0	21.9	
70 Propionitrile	54	5.454	5.454	0.000	98	130541	125.0	130.3	
72 Methacrylonitrile	41	5.610	5.610	0.000	97	925891	100.0	105.4	
83 Tert-amyl methyl ether	73	6.551	6.551	0.000	97	1058840	12.5	12.9	
85 n-Butanol	56	7.160	7.160	0.000	93	80688	250.0	275.7	
87 Ethyl acrylate	55	7.351	7.351	0.000	0	237833	NC	NC	
91 Methyl methacrylate	100	7.665	7.665	0.000	96	94799	20.0	19.3	
95 2-Nitropropane	41	8.187	8.187	0.000	97	68670	20.0	18.9	
107 Tetrahydrothiophene	60	10.119	10.119	0.000	71	109788	10.0	9.94	
119 cis-1,4-Dichloro-2-butene	53	12.661	12.661	0.000	93	75289	10.0	11.0	
135 1,2,3-Trimethylbenzene	105	14.193	14.193	0.000	99	1016440	10.0	9.74	
140 1,3,5-Trichlorobenzene	180	15.516	15.516	0.000	96	490488	10.0	9.54	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Supp A_00011	Amount Added: 5.00	Units: uL
MV-ARCH SS A_00042	Amount Added: 0.80	Units: uL

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2960.D

Injection Date: 28-May-2015 04:25:30

Instrument ID: VMS_H

Operator ID: BERGERB

Lims ID: icis

Worklist Smp#: 19

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

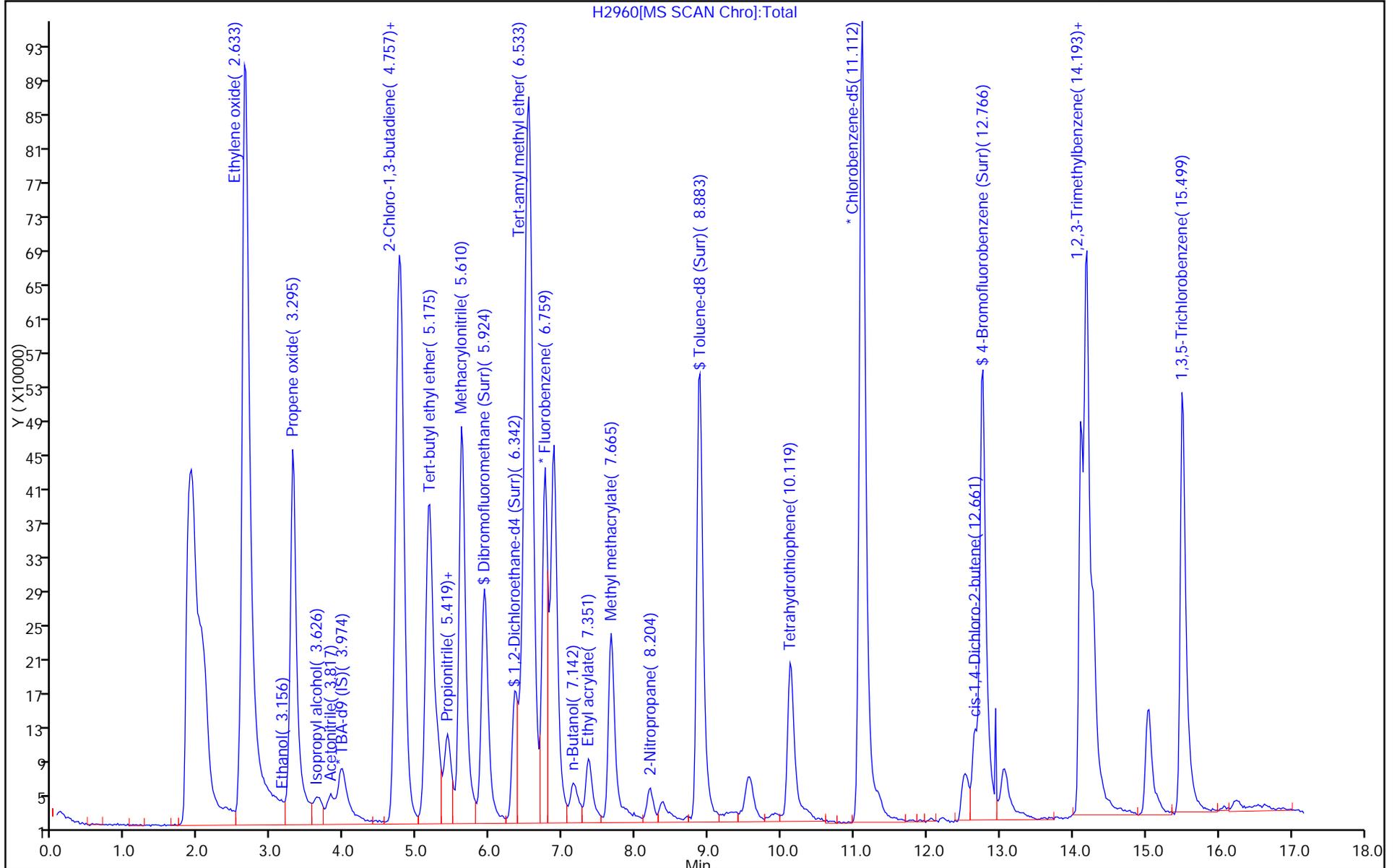
ALS Bottle#: 14

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2961.D
 Lims ID: ic
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 28-May-2015 04:48:30 ALS Bottle#: 15 Worklist Smp#: 20
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: BERGERB Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub99
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 28-May-2015 07:24:22 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: wickhamt Date: 28-May-2015 06:49:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.975	3.974	0.001	99	193158	250.0	250.0	
* 2 Fluorobenzene	96	6.760	6.759	0.001	98	1119204	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.113	11.094	0.019	92	223366	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.107	14.106	0.001	98	396341	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.925	5.924	0.000	93	1592725	30.0	28.2	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	6.342	6.342	0.000	83	881719	30.0	28.2	
\$ 10 Toluene-d8 (Surr)	98	8.884	8.883	0.001	95	3504937	30.0	32.2	
\$ 11 4-Bromofluorobenzene (Surr	95	12.766	12.766	0.000	81	1920918	30.0	28.3	
34 Ethylene oxide	43	2.634	2.633	0.001	99	3313631	6000.0	6030.9	
39 Ethanol	45	3.122	3.156	-0.034	90	92015	1500.0	1472.0	
43 Propene oxide	58	3.296	3.295	0.001	95	3129672	1500.0	1491.7	
49 Isopropyl alcohol	45	3.626	3.626	0.000	45	156601	300.0	299.4	a
51 Acetonitrile	41	3.801	3.817	-0.016	97	239466	375.0	376.1	
62 Isopropyl ether	87	4.741	4.757	-0.016	99	949648	37.5	36.7	
63 2-Chloro-1,3-butadiene	53	4.793	4.792	0.001	92	1750155	30.0	29.6	
64 Tert-butyl ethyl ether	59	5.158	5.175	-0.017	99	3659958	37.5	34.8	
69 Ethyl acetate	43	5.402	5.419	-0.017	99	835914	60.0	58.9	
70 Propionitrile	54	5.437	5.454	-0.017	98	374048	375.0	369.8	
72 Methacrylonitrile	41	5.611	5.610	0.001	96	2645878	300.0	298.2	
83 Tert-amyl methyl ether	73	6.551	6.551	0.001	96	2980183	37.5	36.0	
85 n-Butanol	56	7.143	7.160	-0.017	94	237384	750.0	803.2	
87 Ethyl acrylate	55	7.352	7.351	0.001	0	693518	NC	NC	
91 Methyl methacrylate	100	7.665	7.665	0.000	95	277060	60.0	55.8	
95 2-Nitropropane	41	8.188	8.187	0.001	98	235853	60.0	64.4	
107 Tetrahydrothiophene	60	10.120	10.119	0.001	59	307294	30.0	31.9	
119 cis-1,4-Dichloro-2-butene	53	12.662	12.661	0.001	96	206859	30.0	29.6	
135 1,2,3-Trimethylbenzene	105	14.194	14.193	0.001	99	3206272	30.0	30.2	
140 1,3,5-Trichlorobenzene	180	15.500	15.516	-0.016	95	1552919	30.0	29.7	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

a - User Assigned ID

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Supp A_00011	Amount Added: 15.00	Units: uL
MV-ARCH SS A_00042	Amount Added: 2.40	Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2961.D

Injection Date: 28-May-2015 04:48:30

Instrument ID: VMS_H

Operator ID: BERGERB

Lims ID: ic

Worklist Smp#: 20

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

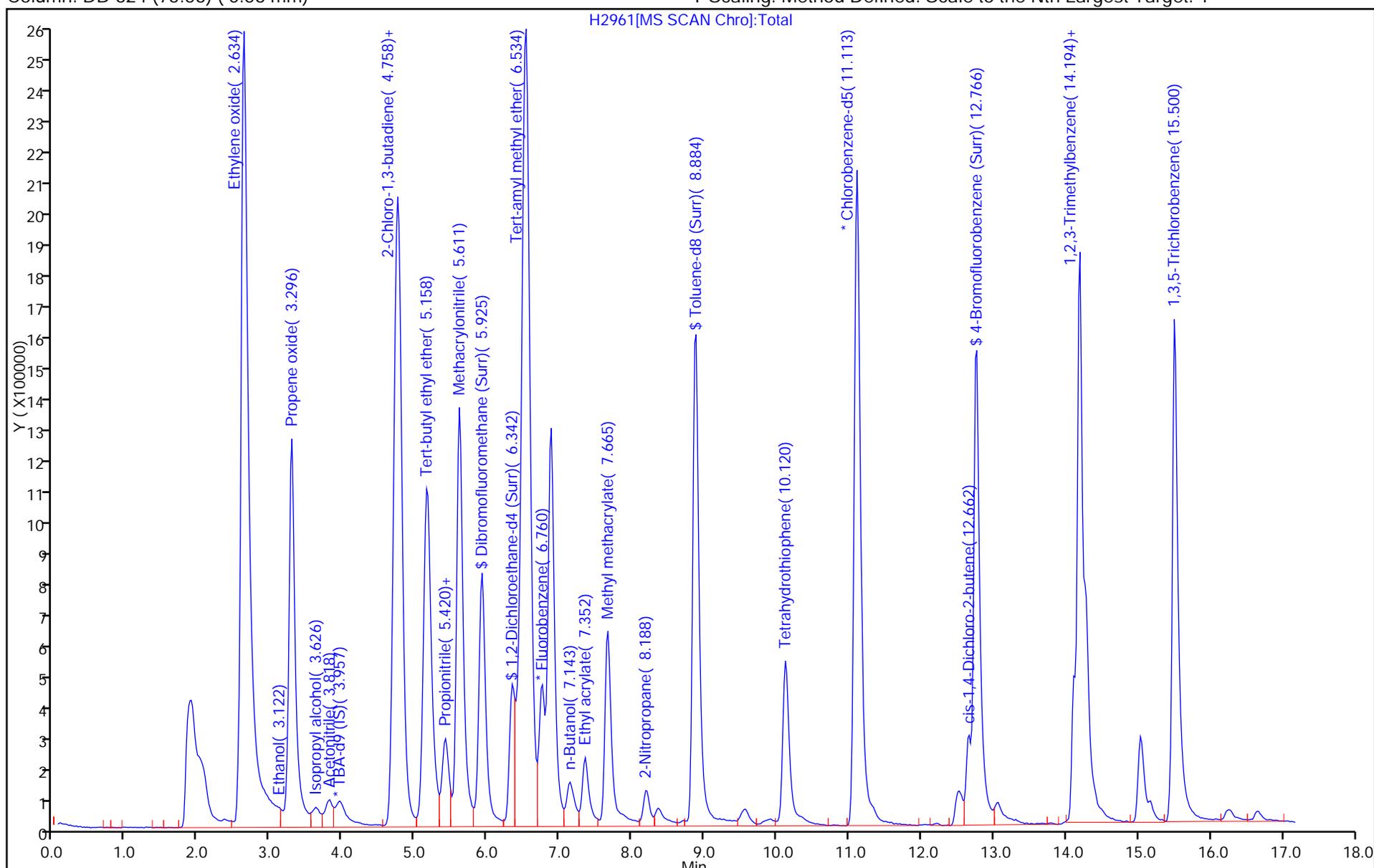
ALS Bottle#: 15

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



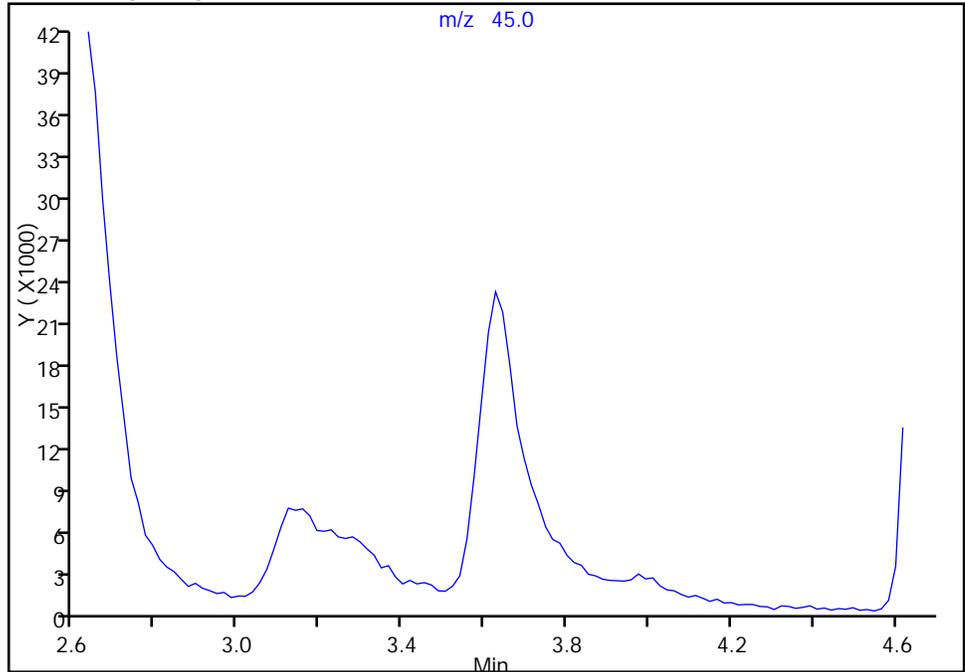
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2961.D
Injection Date: 28-May-2015 04:48:30 Instrument ID: VMS_H
Lims ID: ic
Client ID:
Operator ID: BERGERB ALS Bottle#: 15 Worklist Smp#: 20
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

49 Isopropyl alcohol, CAS: 67-63-0

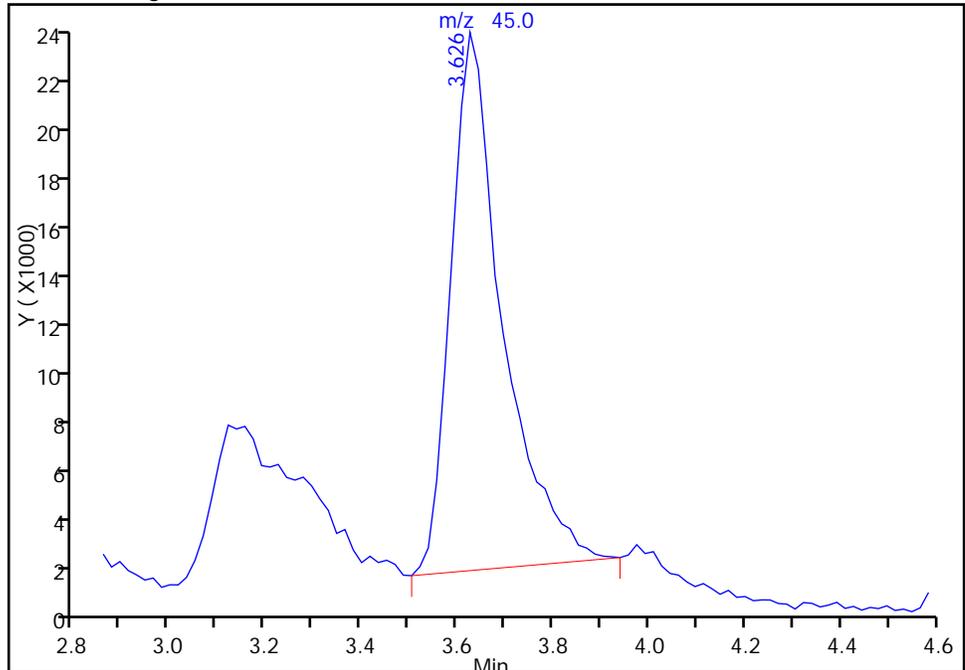
Not Detected
Expected RT: 3.63

Processing Integration Results



RT: 3.63
Area: 156601
Amount: 299.4198
Amount Units: ug/l

Manual Integration Results



Reviewer: wickhamt, 28-May-2015 06:49:25
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Lims ID: ic
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 28-May-2015 05:10:30 ALS Bottle#: 16 Worklist Smp#: 21
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Operator ID: BERGERB Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub99
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 28-May-2015 07:24:23 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: wickhamt

Date: 28-May-2015 06:50:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.970	3.974	-0.004	98	188814	250.0	250.0	
* 2 Fluorobenzene	96	6.756	6.759	-0.003	98	1134348	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.108	11.094	0.014	93	259304	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.120	14.106	0.014	98	413886	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.920	5.924	-0.004	93	3238689	60.0	56.5	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	6.338	6.342	-0.004	83	1797526	60.0	56.6	
\$ 10 Toluene-d8 (Surr)	98	8.880	8.883	-0.003	95	7087877	60.0	56.0	
\$ 11 4-Bromofluorobenzene (Surr	95	12.762	12.766	-0.004	81	3915034	60.0	55.3	
34 Ethylene oxide	43	2.630	2.633	-0.003	99	6477092	12000	11631	
39 Ethanol	45	3.152	3.156	-0.004	91	200333	3000.0	3214.0	
43 Propene oxide	58	3.291	3.295	-0.004	95	6237685	3000.0	2933.5	
49 Isopropyl alcohol	45	3.640	3.626	0.014	98	312090	600.0	595.7	
51 Acetonitrile	41	3.814	3.817	-0.003	99	480531	750.0	755.6	
62 Isopropyl ether	87	4.754	4.757	-0.003	99	1898580	75.0	72.3	
63 2-Chloro-1,3-butadiene	53	4.789	4.792	-0.003	92	3499683	60.0	58.5	
64 Tert-butyl ethyl ether	59	5.172	5.175	-0.003	99	7387205	75.0	69.4	
69 Ethyl acetate	43	5.415	5.419	-0.004	99	1689137	120.0	117.4	
70 Propionitrile	54	5.450	5.454	-0.004	98	752658	750.0	734.2	
72 Methacrylonitrile	41	5.607	5.610	-0.003	96	5249270	600.0	583.8	
83 Tert-amyl methyl ether	73	6.547	6.551	-0.003	96	5944725	75.0	70.9	
85 n-Butanol	56	7.139	7.160	-0.021	94	479232	1500.0	1599.8	
87 Ethyl acrylate	55	7.348	7.351	-0.003	0	1402868	NC	NC	
91 Methyl methacrylate	100	7.661	7.665	-0.004	95	545200	120.0	108.4	
95 2-Nitropropane	41	8.201	8.187	0.014	97	474539	120.0	127.8	
107 Tetrahydrothiophene	60	10.116	10.119	-0.003	94	640849	60.0	57.4	
119 cis-1,4-Dichloro-2-butene	53	12.658	12.661	-0.003	93	412278	60.0	56.6	
135 1,2,3-Trimethylbenzene	105	14.190	14.193	-0.003	99	6472065	60.0	58.5	
140 1,3,5-Trichlorobenzene	180	15.513	15.516	-0.003	95	3310308	60.0	60.7	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Supp A_00011	Amount Added: 30.00	Units: uL
MV-ARCH SS A_00042	Amount Added: 4.80	Units: uL

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D

Injection Date: 28-May-2015 05:10:30

Instrument ID: VMS_H

Operator ID: BERGERB

Lims ID: ic

Worklist Smp#: 21

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

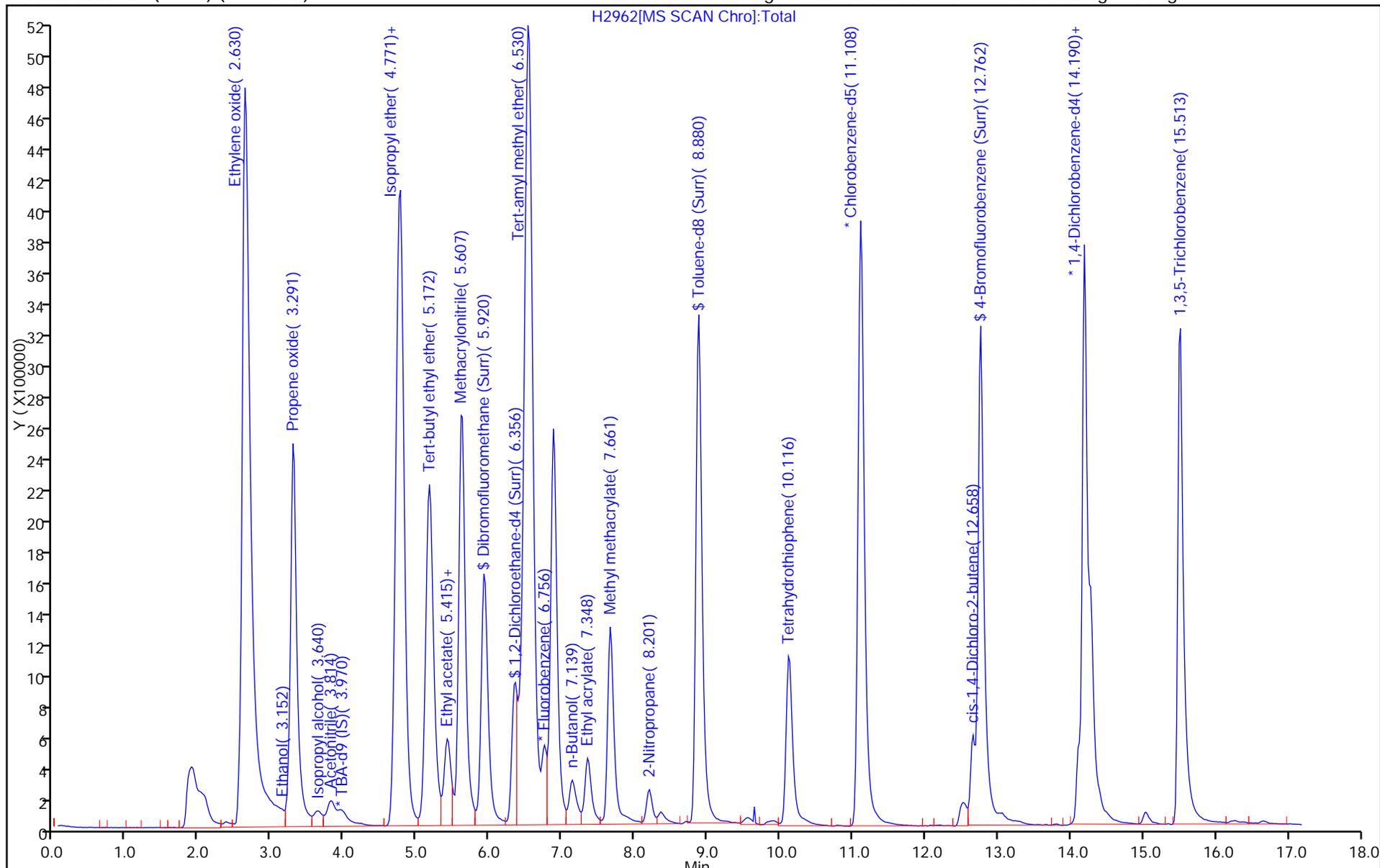
ALS Bottle#: 16

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Lab Sample ID: ICV 280-279265/23 Calibration Date: 05/28/2015 05:32
 Instrument ID: VMS_H Calib Start Date: 05/28/2015 00:18
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 05/28/2015 05:10
 Lab File ID: H2963.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol	Lin2		0.0007		494	500	-1.2	20.0
Isopropyl alcohol	Lin1		0.0055		88.7	100	-11.3	20.0
Acetonitrile	Lin1		0.0068		87.6	100	-12.4	20.0
Isopropyl ether	Ave	0.2894	0.2975		10.3	10.0	2.8	20.0
2-Chloro-1,3-butadiene	Ave	0.6594	0.6104		9.26	10.0	-7.4	20.0
Tert-butyl ethyl ether	Ave	1.173	1.143		9.74	10.0	-2.6	20.0
Ethyl acetate	Ave	0.1586	0.0758		9.55	20.0	-52.2*	20.0
Propionitrile	Ave	0.0113	0.0105		92.9	100	-7.1	20.0
Methacrylonitrile	Ave	0.0991	0.0961		97.0	100	-3.0	20.0
Tert-amyl methyl ether	Ave	0.9234	0.9401		10.2	10.0	1.8	20.0
n-Butanol	Ave	0.0033	0.0030		227	250	-9.4	20.0
Methyl methacrylate	Ave	0.0554	0.0515		18.6	20.0	-7.1	20.0
2-Nitropropane	Ave	0.0409	0.0376		18.4	20.0	-8.2	20.0
cis-1,4-Dichloro-2-butene	Ave	0.2201	0.2023		9.19	10.0	-8.1	20.0
1,2,3-Trimethylbenzene	Ave	3.344	3.256		9.74	10.0	-2.6	20.0
Dibromofluoromethane (Surr)	Ave	0.6313	0.6147		9.74	10.0	-2.6	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3497	0.3415		9.76	10.0	-2.4	20.0
Toluene-d8 (Surr)	Ave	6.098	5.438		8.92	10.0	-10.8	20.0
4-Bromofluorobenzene (Surr)	Ave	2.139	2.033		9.50	10.0	-5.0	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2963.D
 Lims ID: icv
 Client ID:
 Sample Type: ICV
 Inject. Date: 28-May-2015 05:32:30 ALS Bottle#: 17 Worklist Smp#: 23
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: icv
 Operator ID: BERGERB Instrument ID: VMS_H
 Sublist:
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 28-May-2015 07:24:23 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: wickhamt

Date: 28-May-2015 06:59:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.972	3.974	-0.002	99	204860	250.0	250.0	
* 2 Fluorobenzene	96	6.758	6.759	-0.001	98	1164628	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.110	11.094	0.016	93	280885	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.122	14.106	0.016	98	430424	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.922	5.924	-0.002	93	572757	10.0	9.74	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	6.340	6.342	-0.002	83	318128	10.0	9.76	
\$ 10 Toluene-d8 (Surr)	98	8.882	8.883	-0.001	95	1222071	10.0	8.92	
\$ 11 4-Bromofluorobenzene (Surr	95	12.764	12.766	-0.002	81	700042	10.0	9.50	
34 Ethylene oxide	43	2.632	2.633	-0.001	99	932781	2000.0	1631.5	
39 Ethanol	45	3.189	3.156	0.033	97	34023	500.0	493.9	
43 Propene oxide	58	3.293	3.295	-0.002	96	951459	500.0	435.8	
49 Isopropyl alcohol	45	3.641	3.626	0.015	91	50985	100.0	88.7	
51 Acetonitrile	41	3.816	3.817	-0.001	43	63540	100.0	87.6	
62 Isopropyl ether	87	4.738	4.757	-0.019	99	277193	10.0	10.3	
63 2-Chloro-1,3-butadiene	53	4.791	4.792	-0.002	92	568751	10.0	9.26	
64 Tert-butyl ethyl ether	59	5.156	5.175	-0.019	99	1065234	10.0	9.74	
69 Ethyl acetate	43	5.417	5.419	-0.002	99	141175	20.0	9.55	
70 Propionitrile	54	5.452	5.454	-0.002	97	97746	100.0	92.9	
72 Methacrylonitrile	41	5.609	5.610	-0.001	96	895777	100.0	97.0	
83 Tert-amyl methyl ether	73	6.549	6.551	-0.001	96	875908	10.0	10.2	
85 n-Butanol	56	7.158	7.160	-0.002	92	69671	250.0	226.5	
87 Ethyl acrylate	55	7.350	7.351	-0.001	0	243316	NC	NC	
91 Methyl methacrylate	100	7.663	7.665	-0.002	95	95933	20.0	18.6	
95 2-Nitropropane	41	8.203	8.187	0.016	96	69966	20.0	18.4	
107 Tetrahydrothiophene	60	10.118	10.119	-0.001	67	94629	10.0	7.82	
119 cis-1,4-Dichloro-2-butene	53	12.660	12.661	-0.001	93	69653	10.0	9.19	
135 1,2,3-Trimethylbenzene	105	14.192	14.193	-0.001	99	1121122	10.0	9.74	
140 1,3,5-Trichlorobenzene	180	15.515	15.516	-0.001	95	569390	10.0	10.0	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Supp B_00005	Amount Added: 5.00	Units: uL
MV-ARCH SS A_00042	Amount Added: 0.80	Units: uL

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2963.D

Injection Date: 28-May-2015 05:32:30

Instrument ID: VMS_H

Operator ID: BERGERB

Lims ID: icv

Worklist Smp#: 23

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

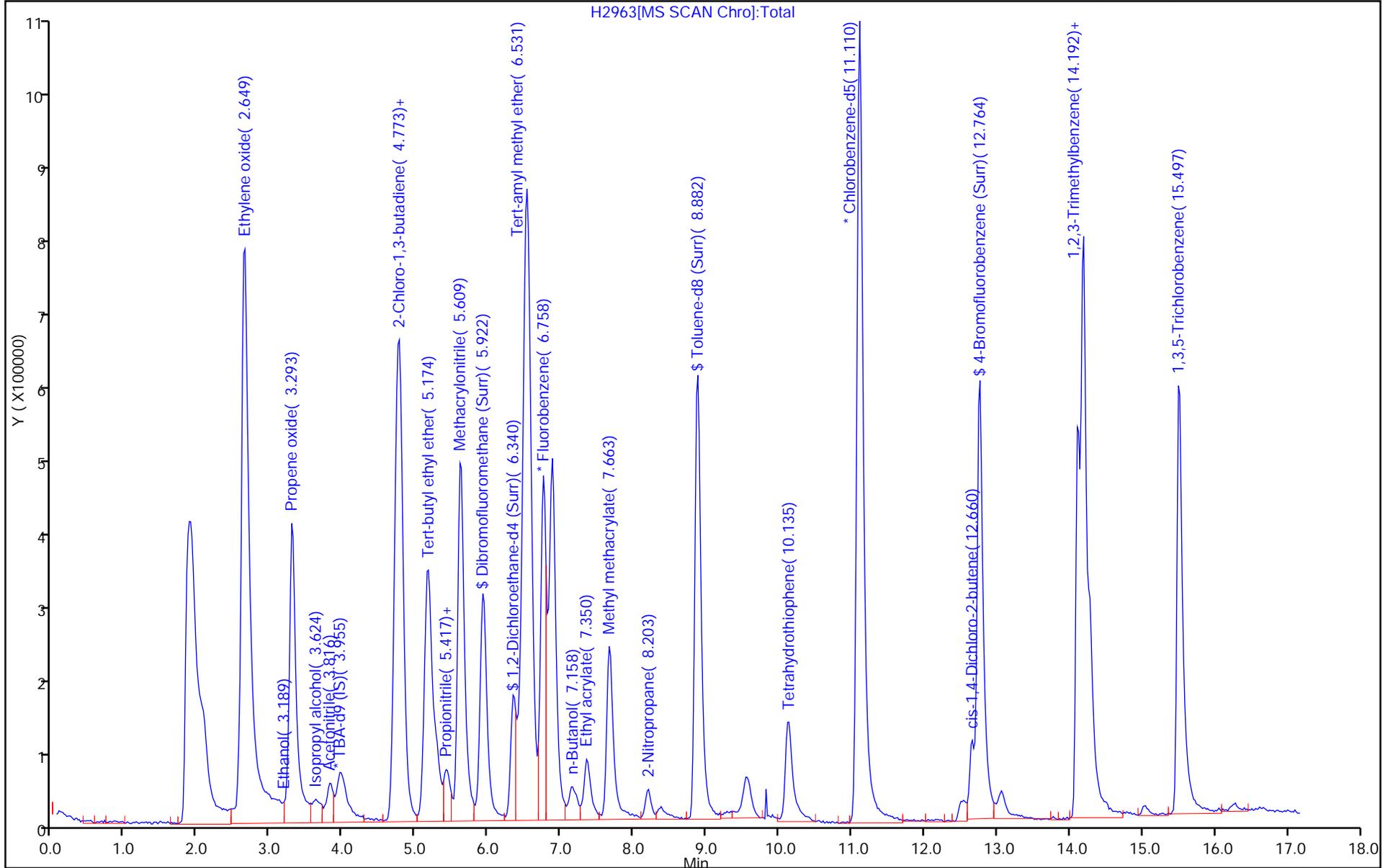
ALS Bottle#: 17

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Lab Sample ID: CCV 280-279458/2 Calibration Date: 05/28/2015 19:17
 Instrument ID: VMS_H Calib Start Date: 05/28/2015 00:18
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 05/28/2015 05:10
 Lab File ID: H2998.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Lin1		0.6116		10.2	10.0	1.5	20.0
Chloromethane	Ave	0.3892	0.3868	0.1000	9.94	10.0	-0.6	20.0
Vinyl chloride	Ave	0.3807	0.3967		10.4	10.0	4.2	20.0
Bromomethane	Ave	0.3159	0.3257		10.3	10.0	3.1	20.0
Chloroethane	Ave	0.2314	0.2457		10.6	10.0	6.2	20.0
Dichlorofluoromethane	Ave	0.8394	0.9017		10.7	10.0	7.4	20.0
Trichlorofluoromethane	Ave	0.7509	0.8035		10.7	10.0	7.0	20.0
Ethyl ether	Ave	0.1983	0.2094		10.6	10.0	5.6	20.0
Acrolein	Ave	0.0137	0.0125		91.2	100	-8.8	20.0
1,1-Dichloroethene	Ave	0.3733	0.3885		10.4	10.0	4.1	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.5088	0.5342		10.5	10.0	5.0	20.0
Acetone	Ave	0.0389	0.0383		39.4	40.0	-1.6	20.0
Iodomethane	Ave	0.8401	0.8279		9.85	10.0	-1.5	20.0
Carbon disulfide	Ave	1.439	1.467		10.2	10.0	1.9	20.0
3-Chloro-1-propene	Ave	0.8666	0.8888		10.3	10.0	2.6	20.0
Methyl acetate	Ave	0.1259	0.1358		53.9	50.0	7.8	20.0
Methylene Chloride	Lin2		0.3673		11.2	10.0	11.5	20.0
tert-Butyl alcohol	Lin1		1.323		109	100	9.2	20.0
Acrylonitrile	Ave	0.0326	0.0341		105	100	4.6	20.0
Methyl tert-butyl ether	Ave	0.7116	0.7360		10.3	10.0	3.4	20.0
trans-1,2-Dichloroethene	Ave	0.4200	0.4304		10.2	10.0	2.5	20.0
Hexane	Ave	3.353	3.618		10.8	10.0	7.9	20.0
1,1-Dichloroethane	Ave	0.8867	0.8710	0.1000	9.82	10.0	-1.8	20.0
Vinyl acetate	Ave	0.5491	0.6059		22.1	20.0	10.3	20.0
2-Butanone (MEK)	Ave	0.0717	0.0823		45.9	40.0	14.8	20.0
cis-1,2-Dichloroethene	Ave	0.4232	0.4247		10.0	10.0	0.3	20.0
2,2-Dichloropropane	Lin2		0.8253		10.5	10.0	5.1	20.0
sec-Butyl Alcohol	Ave	1.790	1.593		267	300	-11.0	20.0
Bromochloromethane	Ave	0.1857	0.1893		10.2	10.0	1.9	20.0
Tetrahydrofuran	Ave	0.0516	0.0532		20.6	20.0	3.0	20.0
Chloroform	Ave	0.8281	0.8196		9.90	10.0	-1.0	20.0
1,1,1-Trichloroethane	Ave	0.7908	0.8158		10.3	10.0	3.2	20.0
Cyclohexane	Ave	0.8724	0.9237		10.6	10.0	5.9	20.0
1,1-Dichloropropene	Ave	0.7089	0.6932		9.78	10.0	-2.2	20.0
Carbon tetrachloride	Ave	0.7352	0.7613		10.4	10.0	3.5	20.0
Isobutyl alcohol	Ave	0.6270	0.5773		230	250	-7.9	20.0
Benzene	Ave	1.309	1.336		10.2	10.0	2.0	20.0
1,2-Dichloroethane	Ave	0.3956	0.3953		9.99	10.0	-0.0	20.0
Trichloroethene	Ave	0.5325	0.5464		10.3	10.0	2.6	20.0
2-Pentanone	Ave	0.1989	0.2162		43.5	40.0	8.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Lab Sample ID: CCV 280-279458/2 Calibration Date: 05/28/2015 19:17
 Instrument ID: VMS_H Calib Start Date: 05/28/2015 00:18
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 05/28/2015 05:10
 Lab File ID: H2998.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.7772	0.8312		10.7	10.0	6.9	20.0
1,2-Dichloropropane	Ave	0.5231	0.5148		9.84	10.0	-1.6	20.0
Dibromomethane	Ave	0.2607	0.2516		9.65	10.0	-3.5	20.0
1,4-Dioxane	Lin2		0.0016		213	200	6.5	20.0
Bromodichloromethane	Ave	0.7613	0.7568		9.94	10.0	-0.6	20.0
2-Chloroethyl vinyl ether	Ave	0.0935	0.0911		9.75	10.0	-2.5	20.0
cis-1,3-Dichloropropene	Ave	2.945	2.953		10.0	10.0	0.3	20.0
4-Methyl-2-pentanone (MIBK)	Lin1		0.3044		45.8	40.0	14.5	20.0
Toluene	Ave	1.501	1.503		10.0	10.0	0.2	20.0
trans-1,3-Dichloropropene	Ave	0.4794	0.4873		10.2	10.0	1.7	20.0
Ethyl methacrylate	Ave	1.808	1.871		10.3	10.0	3.5	20.0
1,1,2-Trichloroethane	Ave	0.3008	0.2996		9.96	10.0	-0.4	20.0
Tetrachloroethene	Ave	2.034	2.118		10.4	10.0	4.2	20.0
1,3-Dichloropropane	Ave	2.292	2.267		9.89	10.0	-1.1	20.0
2-Hexanone	Lin1		0.9006		43.4	40.0	8.4	20.0
Chlorodibromomethane	Ave	2.231	2.272		10.2	10.0	1.8	20.0
1,2-Dibromoethane	Ave	1.573	1.622		10.3	10.0	3.1	20.0
1-Chlorohexane	Ave	3.436	3.441		10.0	10.0	0.2	20.0
Chlorobenzene	Ave	4.483	4.480	0.3000	9.99	10.0	-0.0	20.0
1,1,1,2-Tetrachloroethane	Ave	2.164	2.173		10.0	10.0	0.4	20.0
Ethylbenzene	Ave	2.285	2.291		10.0	10.0	0.3	20.0
m-Xylene & p-Xylene	Ave	3.107	3.173		10.2	10.0	2.1	20.0
o-Xylene	Ave	2.726	2.725		10.0	10.0	-0.0	20.0
Styrene	Ave	4.408	4.496		10.2	10.0	2.0	20.0
Bromoform	Ave	1.204	1.258	0.1000	10.5	10.0	4.5	20.0
Isopropylbenzene	Ave	5.356	5.289		9.87	10.0	-1.3	20.0
Cyclohexanone	Lin1		0.0289		418	400	4.6	20.0
1,1,2,2-Tetrachloroethane	Ave	1.115	1.109	0.3000	9.95	10.0	-0.5	20.0
Bromobenzene	Ave	1.235	1.227		9.94	10.0	-0.6	20.0
1,2,3-Trichloropropane	Ave	0.2607	0.2537		9.73	10.0	-2.7	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2926	0.2684		9.17	10.0	-8.3	20.0
N-Propylbenzene	Ave	1.311	1.274		9.72	10.0	-2.8	20.0
2-Chlorotoluene	Ave	1.016	1.027		10.1	10.0	1.0	20.0
1,3,5-Trimethylbenzene	Ave	4.052	3.947		9.74	10.0	-2.6	20.0
4-Chlorotoluene	Ave	1.313	1.240		9.45	10.0	-5.5	20.0
tert-Butylbenzene	Ave	4.395	4.287		9.75	10.0	-2.5	20.0
1,2,4-Trimethylbenzene	Ave	3.849	3.663		9.52	10.0	-4.8	20.0
sec-Butylbenzene	Ave	1.160	1.131		9.75	10.0	-2.5	20.0
1,3-Dichlorobenzene	Ave	1.876	1.711		9.12	10.0	-8.8	20.0
p-Isopropyltoluene	Ave	4.989	5.001		10.0	10.0	0.2	20.0
1,4-Dichlorobenzene	Ave	2.898	2.941		10.1	10.0	1.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Lab Sample ID: CCV 280-279458/2 Calibration Date: 05/28/2015 19:17
 Instrument ID: VMS_H Calib Start Date: 05/28/2015 00:18
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 05/28/2015 05:10
 Lab File ID: H2998.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
n-Butylbenzene	Ave	5.241	5.088		9.71	10.0	-2.9	20.0
1,2-Dichlorobenzene	Ave	1.969	1.898		9.64	10.0	-3.6	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1839	0.1912		10.4	10.0	4.0	20.0
1,2,3-Trichlorobenzene	Ave	1.042	1.335		10.1	10.0	0.9	20.0
Hexachlorobutadiene	Ave	1.379	1.366		9.90	10.0	-1.0	20.0
Naphthalene	Ave	1.505	1.562		10.4	10.0	3.7	20.0
1,2,4-Trichlorobenzene	Ave	1.323	1.044		10.0	10.0	0.2	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H2998.D
 Lims ID: CCV
 Client ID:
 Sample Type: CCV
 Inject. Date: 28-May-2015 19:17:30 ALS Bottle#: 1 Worklist Smp#: 2
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: CCV M
 Operator ID: bergerb Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub52
 Method: \\Denchrom\ChromData\VMS_H\20150528-35487.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 29-May-2015 17:54:19 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: RT Order ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK049

First Level Reviewer: bergerb

Date: 29-May-2015 17:54:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.988	3.988	0.000	20	246709	250.0	250.0	
* 2 Fluorobenzene	96	6.774	6.774	0.000	92	1179657	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.109	11.109	0.000	86	262602	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.121	14.121	0.000	79	442655	12.5	12.5	
28 Dichlorodifluoromethane	85	2.160	2.160	0.000	98	577204	10.0	10.2	
30 Chloromethane	50	2.265	2.265	0.000	88	365060	10.0	9.94	
31 Butadiene	54	2.386	2.386	0.000	0	299743	NC	NC	
32 Vinyl chloride	62	2.386	2.386	0.000	84	374333	10.0	10.4	
35 Bromomethane	94	2.682	2.682	0.000	88	307379	10.0	10.3	
36 Chloroethane	64	2.752	2.752	0.000	83	231883	10.0	10.6	
37 Dichlorofluoromethane	67	2.944	2.944	0.000	97	850991	10.0	10.7	
38 Trichlorofluoromethane	101	3.013	3.013	0.000	99	758307	10.0	10.7	
40 Ethyl ether	59	3.222	3.222	0.000	94	197585	10.0	10.6	
44 Acrolein	56	3.361	3.361	0.000	60	117570	100.0	91.2	
45 1,1-Dichloroethene	96	3.483	3.483	0.000	89	366676	10.0	10.4	
46 1,1,2-Trichloro-1,2,2-trif	151	3.501	3.501	0.000	89	504122	10.0	10.5	
47 Acetone	43	3.518	3.518	0.000	20	144562	40.0	39.4	
48 Iodomethane	142	3.657	3.657	0.000	98	781282	10.0	9.85	
50 Carbon disulfide	76	3.727	3.727	0.000	99	1384713	10.0	10.2	
52 3-Chloro-1-propene	41	3.831	3.831	0.000	92	838757	10.0	10.3	
53 Methyl acetate	43	3.831	3.831	0.000	68	640770	50.0	53.9	
54 Methylene Chloride	84	3.953	3.953	0.000	90	346623	10.0	11.2	
55 2-Methyl-2-propanol	59	4.075	4.075	0.000	6	130582	100.0	109.2	
57 Acrylonitrile	53	4.214	4.214	0.000	69	321401	100.0	104.6	
58 trans-1,2-Dichloroethene	96	4.249	4.249	0.000	88	406195	10.0	10.2	
56 Methyl tert-butyl ether	73	4.249	4.249	0.000	58	694602	10.0	10.3	
59 Hexane	57	4.510	4.510	0.000	94	760177	10.0	10.8	
60 1,1-Dichloroethane	63	4.702	4.702	0.000	95	821954	10.0	9.82	
61 Vinyl acetate	43	4.719	4.719	0.000	90	1143577	20.0	22.1	
67 2-Butanone (MEK)	43	5.363	5.363	0.000	50	310673	40.0	45.9	
66 2,2-Dichloropropane	77	5.381	5.381	0.000	78	778875	10.0	10.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
65 cis-1,2-Dichloroethene	96	5.363	5.363	0.000	63	400761	10.0	10.0	
71 sec-Butyl Alcohol	45	5.590	5.590	0.000	51	471587	300.0	267.0	
73 Chlorobromomethane	128	5.659	5.659	0.000	79	178638	10.0	10.2	
74 Tetrahydrofuran	42	5.712	5.712	0.000	35	100336	20.0	20.6	
75 Chloroform	83	5.729	5.729	0.000	89	773444	10.0	9.90	
76 1,1,1-Trichloroethane	97	5.990	5.990	0.000	85	769848	10.0	10.3	
77 Cyclohexane	56	6.060	6.060	0.000	87	871686	10.0	10.6	
78 1,1-Dichloropropene	75	6.164	6.164	0.000	76	654202	10.0	9.78	
79 Carbon tetrachloride	117	6.199	6.199	0.000	75	718438	10.0	10.4	
80 Isobutyl alcohol	41	6.304	6.304	0.000	65	142412	250.0	230.2	
81 Benzene	78	6.425	6.425	0.000	93	1260838	10.0	10.2	
82 1,2-Dichloroethane	62	6.443	6.443	0.000	47	373016	10.0	10.0	
84 n-Heptane	43	6.739	6.739	0.000	97	1157387	10.0	10.6	
86 Trichloroethene	95	7.244	7.244	0.000	84	515643	10.0	10.3	
88 2-Pentanone	43	7.470	7.470	0.000	86	815996	40.0	43.5	
89 Methylcyclohexane	55	7.505	7.505	0.000	75	784391	10.0	10.7	
90 1,2-Dichloropropane	63	7.540	7.540	0.000	73	485831	10.0	9.84	
92 Dibromomethane	93	7.714	7.714	0.000	83	237399	10.0	9.65	
93 1,4-Dioxane	88	7.731	7.731	0.000	1	29762	200.0	212.9	
94 Dichlorobromomethane	83	7.905	7.905	0.000	95	714190	10.0	9.94	
96 2-Chloroethyl vinyl ether	63	8.306	8.306	0.000	67	85989	10.0	9.75	
97 cis-1,3-Dichloropropene	75	8.515	8.515	0.000	79	620401	10.0	10.0	
98 4-Methyl-2-pentanone (MIBK)	43	8.724	8.724	0.000	95	1148883	40.0	45.8	
99 Toluene	91	8.985	8.985	0.000	95	1418791	10.0	10.0	
100 trans-1,3-Dichloropropene	75	9.281	9.281	0.000	88	459863	10.0	10.2	
101 Ethyl methacrylate	69	9.420	9.420	0.000	74	392985	10.0	10.3	
102 1,1,2-Trichloroethane	97	9.559	9.559	0.000	90	282769	10.0	9.96	
103 Tetrachloroethene	164	9.768	9.768	0.000	91	445008	10.0	10.4	
104 1,3-Dichloropropane	76	9.803	9.803	0.000	96	476210	10.0	9.89	
105 2-Hexanone	43	9.925	9.925	0.000	76	756773	40.0	43.4	
108 Chlorodibromomethane	129	10.151	10.151	0.000	90	477333	10.0	10.2	
109 Ethylene Dibromide	107	10.343	10.343	0.000	92	340668	10.0	10.3	
110 1-Chlorohexane	91	11.126	11.126	0.000	82	722949	10.0	10.0	
111 Chlorobenzene	112	11.161	11.161	0.000	86	941186	10.0	10.0	
112 1,1,1,2-Tetrachloroethane	131	11.283	11.283	0.000	75	456565	10.0	10.0	
113 Ethylbenzene	106	11.335	11.335	0.000	80	481357	10.0	10.0	
114 m-Xylene & p-Xylene	106	11.509	11.509	0.000	98	666519	10.0	10.2	
115 o-Xylene	106	12.084	12.084	0.000	87	572539	10.0	10.0	
116 Styrene	104	12.101	12.101	0.000	85	944623	10.0	10.2	
117 Bromoform	173	12.362	12.362	0.000	93	264340	10.0	10.5	
118 Isopropylbenzene	105	12.571	12.571	0.000	86	1872976	10.0	9.87	
120 Cyclohexanone	55	12.693	12.693	0.000	64	243196	400.0	418.4	
122 Bromobenzene	156	12.954	12.954	0.000	94	434600	10.0	9.94	
121 1,1,2,2-Tetrachloroethane	83	12.954	12.954	0.000	53	392812	10.0	9.95	
123 1,2,3-Trichloropropane	110	13.006	13.006	0.000	52	89842	10.0	9.73	
124 trans-1,4-Dichloro-2-buten	53	13.024	13.024	0.000	42	95049	10.0	9.17	
125 N-Propylbenzene	120	13.093	13.093	0.000	85	451198	10.0	9.72	
126 2-Chlorotoluene	126	13.180	13.180	0.000	7	363525	10.0	10.1	
127 1,3,5-Trimethylbenzene	105	13.302	13.302	0.000	74	1397659	10.0	9.74	
128 4-Chlorotoluene	126	13.320	13.320	0.000	96	439256	10.0	9.45	
129 tert-Butylbenzene	119	13.685	13.685	0.000	94	1517961	10.0	9.75	
130 1,2,4-Trimethylbenzene	105	13.738	13.738	0.000	92	1297113	10.0	9.52	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 sec-Butylbenzene	134	13.929	13.929	0.000	76	400532	10.0	9.75	
132 1,3-Dichlorobenzene	146	14.051	14.051	0.000	77	605939	10.0	9.12	
133 4-Isopropyltoluene	119	14.086	14.086	0.000	90	1770871	10.0	10.0	
134 1,4-Dichlorobenzene	146	14.138	14.138	0.000	79	1041607	10.0	10.1	
137 n-Butylbenzene	91	14.521	14.521	0.000	97	1801879	10.0	9.71	
138 1,2-Dichlorobenzene	146	14.538	14.538	0.000	69	672161	10.0	9.64	
139 1,2-Dibromo-3-Chloropropan	157	15.322	15.322	0.000	75	67703	10.0	10.4	
144 1,2,3-Trichlorobenzene	180	16.088	16.088	0.000	95	472855	10.0	10.1	
142 Hexachlorobutadiene	225	16.244	16.244	0.000	91	483569	10.0	9.90	
143 Naphthalene	128	16.314	16.314	0.000	94	553046	10.0	10.4	
141 1,2,4-Trichlorobenzene	180	16.540	16.540	0.000	94	369605	10.0	10.0	
S 151 1,2-Dichloroethene, Total	96				0		20.0	20.3	
S 145 Trihalomethanes, Total	1				0		40.0	40.5	
S 146 Xylenes, Total (URS)	1				0		20.0	20.2	
S 148 1,3-Dichloropropene, Total	1				0		20.0	20.2	
S 149 1,2-Dichloroethene, Total	1				0		20.0	20.3	
S 150 Xylenes, Total	106				0		20.0	20.2	

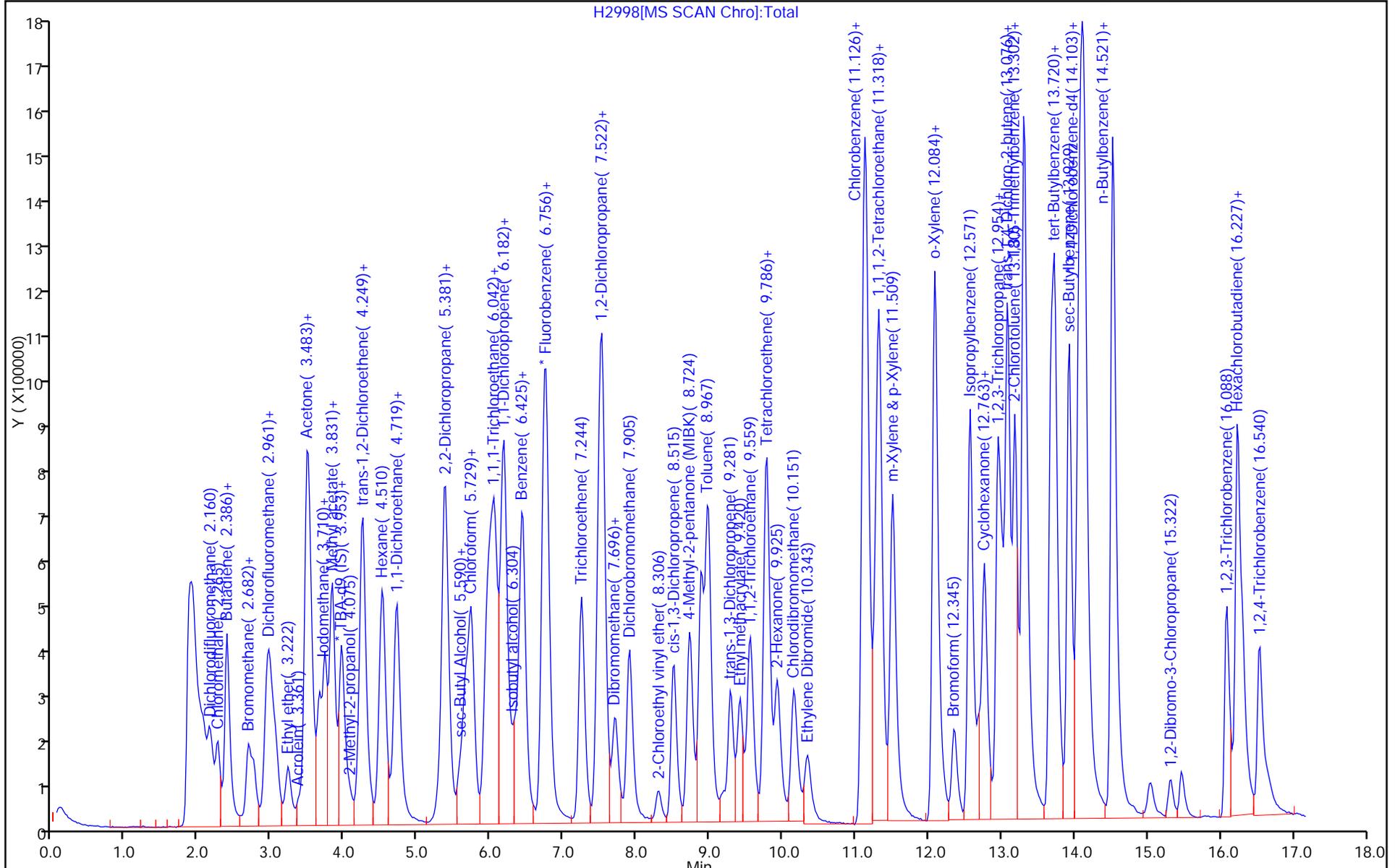
QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MV-568718-D_00002	Amount Added: 1.00	Units: uL
MV-Main A_00022	Amount Added: 5.00	Units: uL
MV-Gas/Ket A_00033	Amount Added: 5.00	Units: uL
MV-2cleve+AVA_00009	Amount Added: 5.00	Units: uL



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Lab Sample ID: CCV 280-279458/3 Calibration Date: 05/28/2015 19:39
 Instrument ID: VMS_H Calib Start Date: 05/28/2015 00:18
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 05/28/2015 05:10
 Lab File ID: H2999.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol	Lin2		0.0006		428	500	-14.4	20.0
Isopropyl alcohol	Lin1		0.0060		97.8	100	-2.2	20.0
Acetonitrile	Lin1		0.0062		100	125	-19.6	20.0
Isopropyl ether	Ave	0.2894	0.2704		11.7	12.5	-6.6	20.0
2-Chloro-1,3-butadiene	Ave	0.6594	0.6164		9.35	10.0	-6.5	20.0
Tert-butyl ethyl ether	Ave	1.173	1.080		11.5	12.5	-7.9	20.0
Ethyl acetate	Ave	0.1586	0.1639		20.7	20.0	3.3	20.0
Propionitrile	Ave	0.0113	0.0104		115	125	-7.8	20.0
Methacrylonitrile	Ave	0.0991	0.0968		97.7	100	-2.3	20.0
Tert-amyl methyl ether	Ave	0.9234	0.8961		12.1	12.5	-3.0	20.0
n-Butanol	Ave	0.0033	0.0033		252	250	1.0	20.0
Methyl methacrylate	Ave	0.0554	0.0523		18.9	20.0	-5.7	20.0
2-Nitropropane	Ave	0.0409	0.0391		19.1	20.0	-4.5	20.0
cis-1,4-Dichloro-2-butene	Ave	0.2201	0.2163		9.83	10.0	-1.7	20.0
1,2,3-Trimethylbenzene	Ave	3.344	3.049		9.12	10.0	-8.8	20.0
Dibromofluoromethane (Surr)	Ave	0.6313	0.6264		8.43	8.50	-0.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3497	0.3470		8.43	8.50	-0.8	20.0
Toluene-d8 (Surr)	Ave	6.098	6.088		8.49	8.50	-0.2	20.0
4-Bromofluorobenzene (Surr)	Ave	2.139	2.053		8.16	8.50	-4.0	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H2999.D
 Lims ID: CCV
 Client ID:
 Sample Type: CCV
 Inject. Date: 28-May-2015 19:39:30 ALS Bottle#: 2 Worklist Smp#: 3
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: CCV S
 Operator ID: bergerb Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub86
 Method: \\Denchrom\ChromData\VMS_H\20150528-35487.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 29-May-2015 17:54:14 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK049

First Level Reviewer: bergerb

Date: 29-May-2015 17:54:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.976	3.976	0.000	97	231604	250.0	250.0	
* 2 Fluorobenzene	96	6.761	6.761	0.000	98	1204670	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.114	11.114	0.000	93	279293	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.126	14.126	0.000	98	433114	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.926	5.926	0.000	93	513095	8.50	8.43	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	6.344	6.344	0.000	83	284259	8.50	8.43	
\$ 10 Toluene-d8 (Surr)	98	8.885	8.885	0.000	95	1156254	8.50	8.49	
\$ 11 4-Bromofluorobenzene (Surr	95	12.768	12.768	0.000	81	604678	8.50	8.16	M
34 Ethylene oxide	43	2.635	2.635	0.000	99	1227513	2000.0	2075.6	
39 Ethanol	45	3.140	3.140	0.000	86	30905	500.0	428.2	
43 Propene oxide	58	3.297	3.297	0.000	95	1157279	500.0	512.5	
49 Isopropyl alcohol	45	3.628	3.628	0.000	36	57705	100.0	97.8	a
51 Acetonitrile	41	3.802	3.802	0.000	99	74306	125.0	100.5	
62 Isopropyl ether	87	4.759	4.759	0.000	99	325730	12.5	11.7	
63 2-Chloro-1,3-butadiene	53	4.794	4.794	0.000	92	594085	10.0	9.35	
64 Tert-butyl ethyl ether	59	5.177	5.177	0.000	99	1301197	12.5	11.5	
69 Ethyl acetate	43	5.421	5.421	0.000	99	315875	20.0	20.7	
70 Propionitrile	54	5.456	5.456	0.000	98	125490	125.0	115.3	
72 Methacrylonitrile	41	5.612	5.612	0.000	97	932674	100.0	97.7	
83 Tert-amyl methyl ether	73	6.552	6.552	0.000	96	1079491	12.5	12.1	
85 n-Butanol	56	7.144	7.144	0.000	95	80314	250.0	252.5	
87 Ethyl acrylate	55	7.353	7.353	0.000	0	252818	NC	NC	
91 Methyl methacrylate	100	7.667	7.667	0.000	96	100791	20.0	18.9	
95 2-Nitropropane	41	8.206	8.206	0.000	96	75304	20.0	19.1	
107 Tetrahydrothiophene	60	10.139	10.139	0.000	59	114018	10.0	9.48	
119 cis-1,4-Dichloro-2-butene	53	12.663	12.663	0.000	95	74954	10.0	9.83	
135 1,2,3-Trimethylbenzene	105	14.195	14.195	0.000	97	1056526	10.0	9.12	
140 1,3,5-Trichlorobenzene	180	15.518	15.518	0.000	95	527281	10.0	9.24	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MV-Supp A_00011	Amount Added: 5.00	Units: uL	
MV-568718-D_00002	Amount Added: 1.00	Units: uL	Run Reagent
MV-ARCH SS A_00042	Amount Added: 0.68	Units: uL	Run Reagent

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H2999.D

Injection Date: 28-May-2015 19:39:30

Instrument ID: VMS_H

Operator ID: bergerb

Lims ID: CCV

Worklist Smp#: 3

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

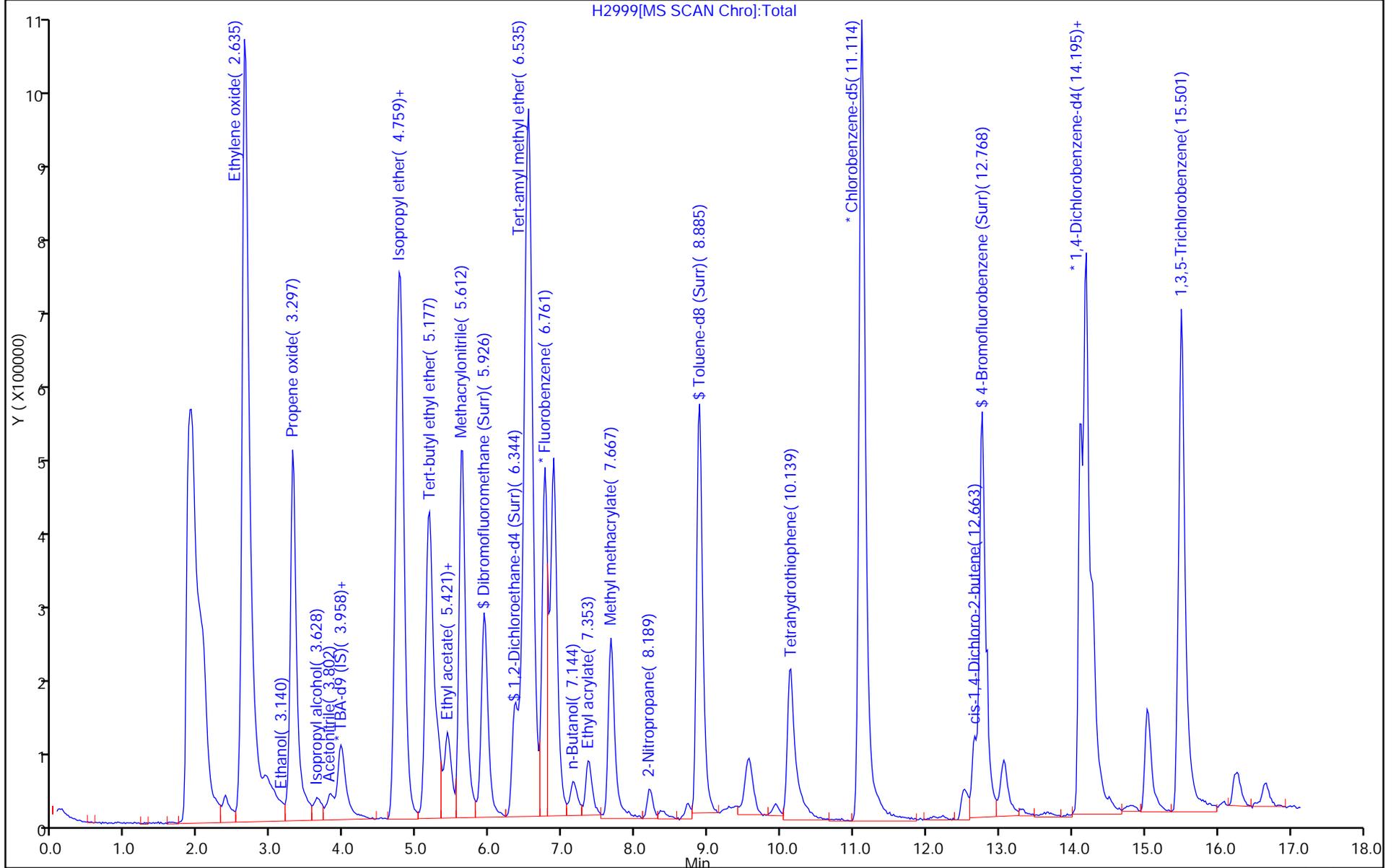
ALS Bottle#: 2

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



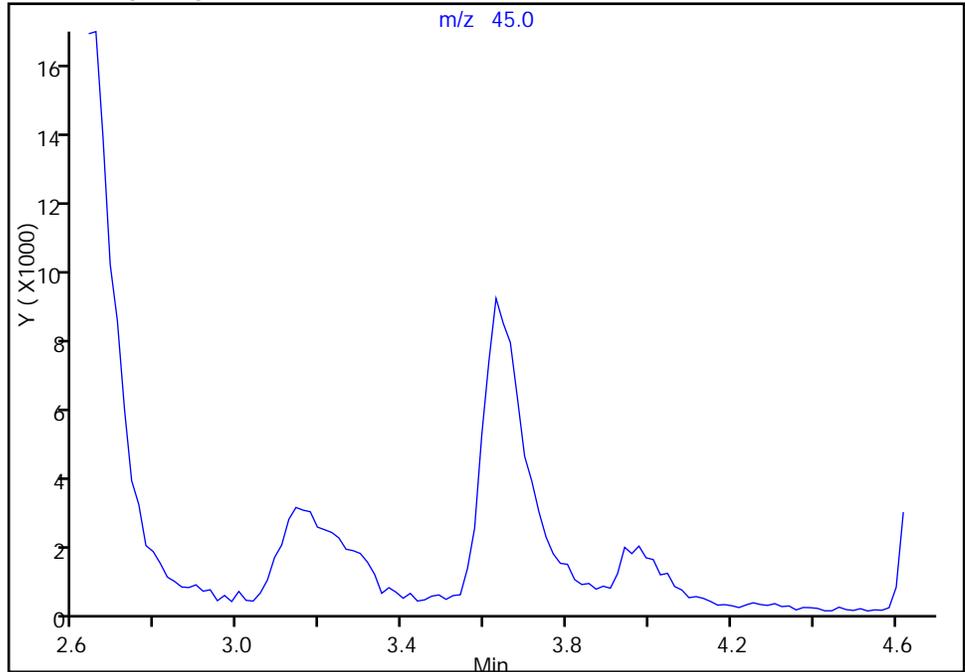
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H2999.D
Injection Date: 28-May-2015 19:39:30 Instrument ID: VMS_H
Lims ID: CCV
Client ID:
Operator ID: bergerb ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

49 Isopropyl alcohol, CAS: 67-63-0

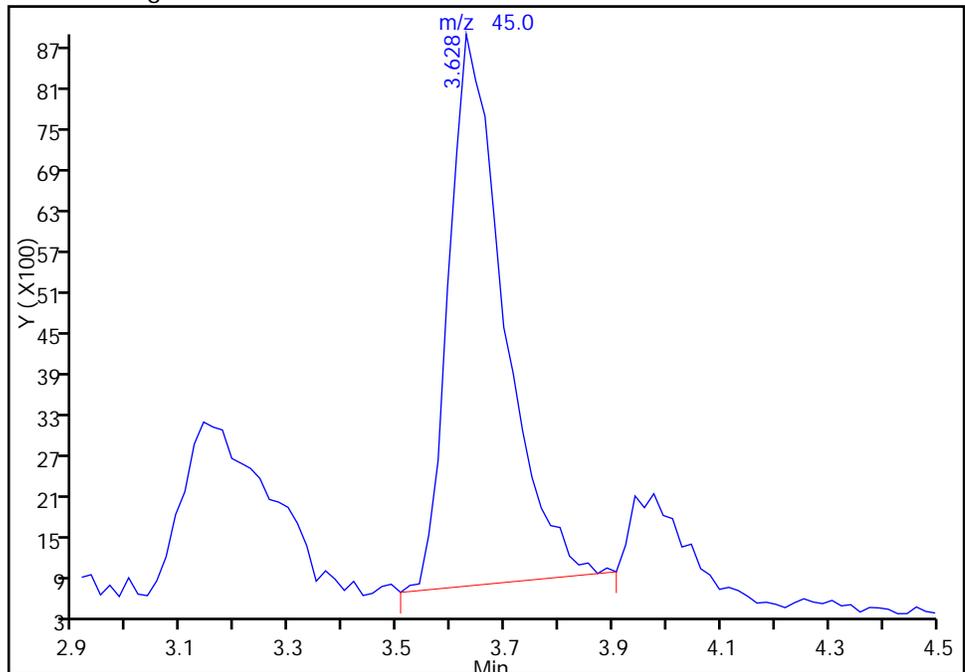
Not Detected
Expected RT: 3.63

Processing Integration Results



RT: 3.63
Area: 57705
Amount: 97.770116
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 28-May-2015 20:12:39
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

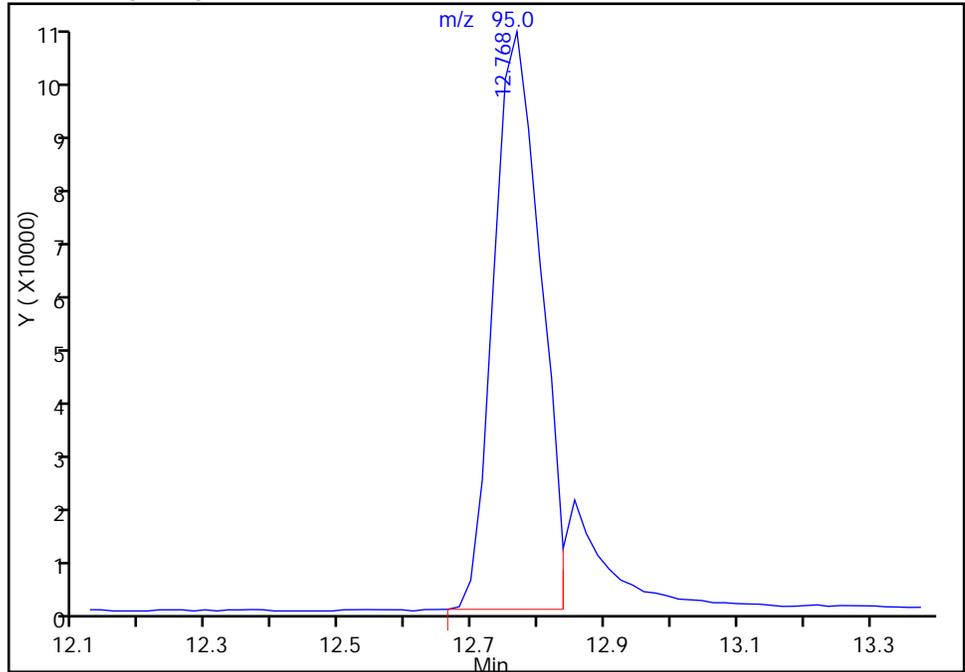
TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H2999.D
Injection Date: 28-May-2015 19:39:30 Instrument ID: VMS_H
Lims ID: CCV
Client ID:
Operator ID: bergerb ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector: MS SCAN

\$ 11 4-Bromofluorobenzene (Surr), CAS: 460-00-4

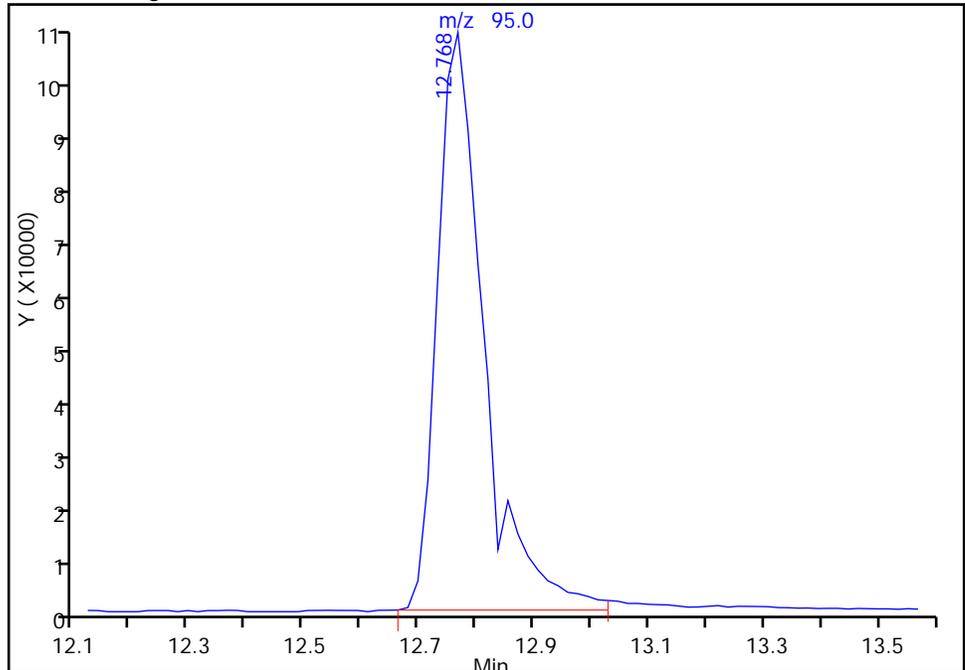
RT: 12.77
Area: 527166
Amount: 7.111438
Amount Units: ug/l

Processing Integration Results



RT: 12.77
Area: 604678
Amount: 8.157070
Amount Units: ug/l

Manual Integration Results



Reviewer: bergerb, 28-May-2015 20:12:39
Audit Action: Split an Integrated Peak
Audit Reason: Split Peak

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Lab Sample ID: CCVC 280-279458/33 Calibration Date: 05/29/2015 06:10
 Instrument ID: VMS_H Calib Start Date: 05/28/2015 00:18
 GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 05/28/2015 05:10
 Lab File ID: H3027.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Lin1		0.5720		9.50	10.0	-5.0	50.0
Chloromethane	Ave	0.3892	0.3959	0.1000	10.2	10.0	1.7	50.0
Vinyl chloride	Ave	0.3807	0.3806		10.0	10.0	-0.0	50.0
Bromomethane	Ave	0.3159	0.3196		10.1	10.0	1.2	50.0
Chloroethane	Ave	0.2314	0.2367		10.2	10.0	2.3	50.0
Dichlorofluoromethane	Ave	0.8394	0.8830		10.5	10.0	5.2	50.0
Trichlorofluoromethane	Ave	0.7509	0.7574		10.1	10.0	0.9	50.0
Ethyl ether	Ave	0.1983	0.1877		9.46	10.0	-5.4	50.0
Acrolein	Ave	0.0137	0.0097		70.9	100	-29.1	50.0
1,1-Dichloroethene	Ave	0.3733	0.3741		10.0	10.0	0.2	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.5088	0.5028		9.88	10.0	-1.2	50.0
Acetone	Ave	0.0389	0.0353		36.3	40.0	-9.3	50.0
Iodomethane	Ave	0.8401	0.8104		9.65	10.0	-3.5	50.0
Carbon disulfide	Ave	1.439	1.392		9.67	10.0	-3.3	50.0
3-Chloro-1-propene	Ave	0.8666	0.8459		9.76	10.0	-2.4	50.0
Methyl acetate	Ave	0.1259	0.1203		47.8	50.0	-4.5	50.0
Methylene Chloride	Lin2		0.3338		10.1	10.0	0.9	50.0
tert-Butyl alcohol	Lin1		1.285		106	100	6.0	50.0
Acrylonitrile	Ave	0.0326	0.0310		95.1	100	-4.9	50.0
Methyl tert-butyl ether	Ave	0.7116	0.6694		9.41	10.0	-5.9	50.0
trans-1,2-Dichloroethene	Ave	0.4200	0.4057		9.66	10.0	-3.4	50.0
Hexane	Ave	3.353	3.517		10.5	10.0	4.9	50.0
1,1-Dichloroethane	Ave	0.8867	0.8570	0.1000	9.67	10.0	-3.3	50.0
Vinyl acetate	Ave	0.5491	0.4604		16.8	20.0	-16.2	50.0
2-Butanone (MEK)	Ave	0.0717	0.0729		40.7	40.0	1.7	50.0
2,2-Dichloropropane	Lin2		0.7020		8.83	10.0	-11.7	50.0
cis-1,2-Dichloroethene	Ave	0.4232	0.4151		9.81	10.0	-1.9	50.0
sec-Butyl Alcohol	Ave	1.790	1.657		278	300	-7.4	50.0
Bromochloromethane	Ave	0.1857	0.1787		9.62	10.0	-3.8	50.0
Chloroform	Ave	0.8281	0.7970		9.62	10.0	-3.8	50.0
Tetrahydrofuran	Ave	0.0516	0.0472		18.3	20.0	-8.6	50.0
1,1,1-Trichloroethane	Ave	0.7908	0.7855		9.93	10.0	-0.7	50.0
Cyclohexane	Ave	0.8724	0.8735		10.0	10.0	0.1	50.0
1,1-Dichloropropene	Ave	0.7089	0.6772		9.55	10.0	-4.5	50.0
Carbon tetrachloride	Ave	0.7352	0.7247		9.86	10.0	-1.4	50.0
Isobutyl alcohol	Ave	0.6270	0.6693		267	250	6.8	50.0
Benzene	Ave	1.309	1.319		10.1	10.0	0.7	50.0
1,2-Dichloroethane	Ave	0.3956	0.3783		9.56	10.0	-4.4	50.0
Trichloroethene	Ave	0.5325	0.5515		10.4	10.0	3.6	50.0
2-Pentanone	Ave	0.1989	0.1835		36.9	40.0	-7.8	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Lab Sample ID: CCVC 280-279458/33 Calibration Date: 05/29/2015 06:10
 Instrument ID: VMS_H Calib Start Date: 05/28/2015 00:18
 GC Column: DB-624 (75.53) ID: 0.53 (mm) Calib End Date: 05/28/2015 05:10
 Lab File ID: H3027.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.7772	0.7940		10.2	10.0	2.2	50.0
1,2-Dichloropropane	Ave	0.5231	0.5112		9.77	10.0	-2.3	50.0
Dibromomethane	Ave	0.2607	0.2427		9.31	10.0	-6.9	50.0
1,4-Dioxane	Lin2		0.0014		187	200	-6.7	50.0
Bromodichloromethane	Ave	0.7613	0.7461		9.80	10.0	-2.0	50.0
2-Chloroethyl vinyl ether	Ave	0.0935	0.0775		8.29	10.0	-17.1	50.0
cis-1,3-Dichloropropene	Ave	2.945	2.885		9.80	10.0	-2.0	50.0
4-Methyl-2-pentanone (MIBK)	Lin1		0.2728		41.0	40.0	2.6	50.0
Toluene	Ave	1.501	1.475		9.83	10.0	-1.7	50.0
trans-1,3-Dichloropropene	Ave	0.4794	0.4508		9.40	10.0	-6.0	50.0
Ethyl methacrylate	Ave	1.808	1.741		9.63	10.0	-3.7	50.0
1,1,2-Trichloroethane	Ave	0.3008	0.2754		9.15	10.0	-8.5	50.0
Tetrachloroethene	Ave	2.034	2.069		10.2	10.0	1.7	50.0
1,3-Dichloropropane	Ave	2.292	2.156		9.41	10.0	-5.9	50.0
2-Hexanone	Lin1		0.7910		38.2	40.0	-4.6	50.0
Chlorodibromomethane	Ave	2.231	2.208		9.90	10.0	-1.0	50.0
1,2-Dibromoethane	Ave	1.573	1.550		9.85	10.0	-1.5	50.0
1-Chlorohexane	Ave	3.436	3.338		9.71	10.0	-2.9	50.0
Chlorobenzene	Ave	4.483	4.397	0.3000	9.81	10.0	-1.9	50.0
1,1,1,2-Tetrachloroethane	Ave	2.164	2.125		9.82	10.0	-1.8	50.0
Ethylbenzene	Ave	2.285	2.260		9.89	10.0	-1.1	50.0
m-Xylene & p-Xylene	Ave	3.107	3.170		10.2	10.0	2.0	50.0
o-Xylene	Ave	2.726	2.746		10.1	10.0	0.7	50.0
Styrene	Ave	4.408	4.403		9.99	10.0	-0.0	50.0
Bromoform	Ave	1.204	1.174	0.1000	9.75	10.0	-2.5	50.0
Isopropylbenzene	Ave	5.356	5.238		9.78	10.0	-2.2	50.0
Cyclohexanone	Lin1		0.0277		401	400	0.2	50.0
1,1,2,2-Tetrachloroethane	Ave	1.115	0.9888	0.3000	8.87	10.0	-11.3	50.0
Bromobenzene	Ave	1.235	1.189		9.62	10.0	-3.8	50.0
1,2,3-Trichloropropane	Ave	0.2607	0.2363		9.07	10.0	-9.3	50.0
trans-1,4-Dichloro-2-butene	Ave	0.2926	0.2483		8.49	10.0	-15.1	50.0
N-Propylbenzene	Ave	1.311	1.251		9.54	10.0	-4.6	50.0
2-Chlorotoluene	Ave	1.016	0.995		9.80	10.0	-2.0	50.0
1,3,5-Trimethylbenzene	Ave	4.052	3.910		9.65	10.0	-3.5	50.0
4-Chlorotoluene	Ave	1.313	1.245		9.48	10.0	-5.2	50.0
tert-Butylbenzene	Ave	4.395	4.203		9.56	10.0	-4.4	50.0
1,2,4-Trimethylbenzene	Ave	3.849	3.737		9.71	10.0	-2.9	50.0
sec-Butylbenzene	Ave	1.160	1.097		9.46	10.0	-5.4	50.0
1,3-Dichlorobenzene	Ave	1.876	1.837		9.79	10.0	-2.1	50.0
p-Isopropyltoluene	Ave	4.989	4.885		9.79	10.0	-2.1	50.0
1,4-Dichlorobenzene	Ave	2.898	2.667		9.20	10.0	-8.0	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Lab Sample ID: CCVC 280-279458/33 Calibration Date: 05/29/2015 06:10
 Instrument ID: VMS_H Calib Start Date: 05/28/2015 00:18
 GC Column: DB-624 (75.53) ID: 0.53 (mm) Calib End Date: 05/28/2015 05:10
 Lab File ID: H3027.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
n-Butylbenzene	Ave	5.241	5.053		9.64	10.0	-3.6	50.0
1,2-Dichlorobenzene	Ave	1.969	1.880		9.54	10.0	-4.6	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.1839	0.1700		9.25	10.0	-7.5	50.0
1,2,3-Trichlorobenzene	Ave	1.042	1.253		9.47	10.0	-5.3	50.0
Hexachlorobutadiene	Ave	1.379	1.318		9.55	10.0	-4.5	50.0
Naphthalene	Ave	1.505	1.389		9.23	10.0	-7.7	50.0
1,2,4-Trichlorobenzene	Ave	1.323	1.002		9.62	10.0	-3.8	50.0
Dibromofluoromethane (Surr)	Ave	0.6313	0.6065		8.17	8.50	-3.9	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3497	0.3458		8.40	8.50	-1.1	50.0
Toluene-d8 (Surr)	Ave	6.098	6.419		8.95	8.50	5.3	50.0
4-Bromofluorobenzene (Surr)	Ave	2.139	2.000		7.95	8.50	-6.5	50.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H3027.D
 Lims ID: CCVC
 Client ID:
 Sample Type: CCVC
 Inject. Date: 29-May-2015 06:10:30 ALS Bottle#: 30 Worklist Smp#: 33
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: CCVC
 Operator ID: bergerb Instrument ID: VMS_H
 Sublist: chrom-AQ_VMSH_8260*sub70
 Method: \\Denchrom\ChromData\VMS_H\20150528-35487.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 29-May-2015 17:20:53 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK049

First Level Reviewer: bergerb Date: 29-May-2015 17:20:53

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.970	3.970	0.000	98	198740	250.0	250.0	
* 2 Fluorobenzene	96	6.755	6.755	0.000	97	1165022	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.090	11.090	0.000	93	253431	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.102	14.102	0.000	97	425494	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.920	5.920	0.000	93	480458	8.50	8.17	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	6.337	6.337	0.000	83	273964	8.50	8.40	
\$ 10 Toluene-d8 (Surr)	98	8.862	8.862	0.000	95	1106242	8.50	8.95	
\$ 11 4-Bromofluorobenzene (Surr	95	12.744	12.744	0.000	80	578793	8.50	7.95	
28 Dichlorodifluoromethane	85	2.159	2.159	0.000	98	533071	10.0	9.50	
30 Chloromethane	50	2.246	2.246	0.000	98	368948	10.0	10.2	
31 Butadiene	54	2.368	2.368	0.000	0	277138	NC	NC	
32 Vinyl chloride	62	2.385	2.385	0.000	98	354743	10.0	10.0	
35 Bromomethane	94	2.681	2.681	0.000	90	297903	10.0	10.1	
36 Chloroethane	64	2.751	2.751	0.000	100	220568	10.0	10.2	
37 Dichlorofluoromethane	67	2.925	2.925	0.000	99	822992	10.0	10.5	
38 Trichlorofluoromethane	101	2.977	2.977	0.000	100	705941	10.0	10.1	
40 Ethyl ether	59	3.204	3.204	0.000	93	174897	10.0	9.46	
44 Acrolein	56	3.360	3.360	0.000	98	90295	100.0	70.9	
45 1,1-Dichloroethene	96	3.465	3.465	0.000	94	348685	10.0	10.0	
46 1,1,2-Trichloro-1,2,2-trif	151	3.482	3.482	0.000	97	468641	10.0	9.88	
47 Acetone	43	3.500	3.500	0.000	37	131609	40.0	36.3	
48 Iodomethane	142	3.639	3.639	0.000	99	755327	10.0	9.65	
50 Carbon disulfide	76	3.709	3.709	0.000	100	1297636	10.0	9.67	
53 Methyl acetate	43	3.813	3.813	0.000	70	560659	50.0	47.8	
52 3-Chloro-1-propene	41	3.813	3.813	0.000	88	788404	10.0	9.76	
54 Methylene Chloride	84	3.935	3.935	0.000	98	311130	10.0	10.1	
55 2-Methyl-2-propanol	59	4.057	4.057	0.000	93	102160	100.0	106.0	
57 Acrylonitrile	53	4.196	4.196	0.000	98	288784	100.0	95.1	
56 Methyl tert-butyl ether	73	4.231	4.231	0.000	98	623924	10.0	9.41	
58 trans-1,2-Dichloroethene	96	4.231	4.231	0.000	94	378096	10.0	9.66	
59 Hexane	57	4.492	4.492	0.000	95	713021	10.0	10.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
60 1,1-Dichloroethane	63	4.684	4.684	0.000	96	798779	10.0	9.67	
61 Vinyl acetate	43	4.701	4.701	0.000	96	858129	20.0	16.8	
67 2-Butanone (MEK)	43	5.345	5.345	0.000	52	271853	40.0	40.7	
65 cis-1,2-Dichloroethene	96	5.363	5.363	0.000	88	386845	10.0	9.81	
66 2,2-Dichloropropane	77	5.363	5.363	0.000	92	654285	10.0	8.83	
71 sec-Butyl Alcohol	45	5.571	5.571	0.000	96	395184	300.0	277.7	
73 Chlorobromomethane	128	5.641	5.641	0.000	89	166589	10.0	9.62	
74 Tetrahydrofuran	42	5.711	5.711	0.000	41	87972	20.0	18.3	
75 Chloroform	83	5.711	5.711	0.000	95	742791	10.0	9.62	
76 1,1,1-Trichloroethane	97	5.972	5.972	0.000	97	732059	10.0	9.93	
77 Cyclohexane	56	6.042	6.042	0.000	93	814102	10.0	10.0	
78 1,1-Dichloropropene	75	6.146	6.146	0.000	91	631147	10.0	9.55	
79 Carbon tetrachloride	117	6.181	6.181	0.000	99	675397	10.0	9.86	
80 Isobutyl alcohol	41	6.285	6.285	0.000	93	133017	250.0	266.9	
81 Benzene	78	6.407	6.407	0.000	98	1228989	10.0	10.1	
82 1,2-Dichloroethane	62	6.425	6.425	0.000	96	352535	10.0	9.56	
84 n-Heptane	43	6.703	6.703	0.000	97	1094889	10.0	10.1	
86 Trichloroethene	95	7.225	7.225	0.000	96	513995	10.0	10.4	
88 2-Pentanone	43	7.452	7.452	0.000	96	684087	40.0	36.9	
89 Methylcyclohexane	55	7.486	7.486	0.000	91	739998	10.0	10.2	
90 1,2-Dichloropropane	63	7.521	7.521	0.000	96	476426	10.0	9.77	
92 Dibromomethane	93	7.678	7.678	0.000	92	226176	10.0	9.31	
93 1,4-Dioxane	88	7.695	7.695	0.000	30	25531	200.0	186.5	
94 Dichlorobromomethane	83	7.887	7.887	0.000	98	695390	10.0	9.80	
96 2-Chloroethyl vinyl ether	63	8.287	8.287	0.000	87	72256	10.0	8.29	
97 cis-1,3-Dichloropropene	75	8.479	8.479	0.000	90	584865	10.0	9.80	
98 4-Methyl-2-pentanone (MIBK)	43	8.705	8.705	0.000	96	1016898	40.0	41.0	
99 Toluene	91	8.966	8.966	0.000	97	1374548	10.0	9.83	
100 trans-1,3-Dichloropropene	75	9.280	9.280	0.000	99	420129	10.0	9.40	
101 Ethyl methacrylate	69	9.402	9.402	0.000	97	353057	10.0	9.63	
102 1,1,2-Trichloroethane	97	9.541	9.541	0.000	94	256641	10.0	9.15	
103 Tetrachloroethene	164	9.750	9.750	0.000	95	419419	10.0	10.2	
104 1,3-Dichloropropane	76	9.785	9.785	0.000	97	437141	10.0	9.41	
105 2-Hexanone	43	9.906	9.906	0.000	98	641517	40.0	38.2	
108 Chlorodibromomethane	129	10.133	10.133	0.000	90	447664	10.0	9.90	
109 Ethylene Dibromide	107	10.324	10.324	0.000	98	314188	10.0	9.85	
110 1-Chlorohexane	91	11.108	11.108	0.000	91	676691	10.0	9.71	
111 Chlorobenzene	112	11.143	11.143	0.000	89	891436	10.0	9.81	
112 1,1,1,2-Tetrachloroethane	131	11.282	11.282	0.000	94	430814	10.0	9.82	
113 Ethylbenzene	106	11.317	11.317	0.000	99	458264	10.0	9.89	
114 m-Xylene & p-Xylene	106	11.491	11.491	0.000	98	642713	10.0	10.2	
115 o-Xylene	106	12.065	12.065	0.000	94	556668	10.0	10.1	
116 Styrene	104	12.083	12.083	0.000	85	892785	10.0	10.0	
117 Bromoform	173	12.344	12.344	0.000	94	238012	10.0	9.75	
118 Isopropylbenzene	105	12.553	12.553	0.000	97	1783139	10.0	9.78	
120 Cyclohexanone	55	12.675	12.675	0.000	95	224905	400.0	401.0	
122 Bromobenzene	156	12.936	12.936	0.000	94	404582	10.0	9.62	
121 1,1,2,2-Tetrachloroethane	83	12.936	12.936	0.000	92	336587	10.0	8.87	
123 1,2,3-Trichloropropane	110	12.988	12.988	0.000	80	80441	10.0	9.07	
124 trans-1,4-Dichloro-2-buten	53	13.005	13.005	0.000	67	84531	10.0	8.49	
125 N-Propylbenzene	120	13.075	13.075	0.000	99	425714	10.0	9.54	
126 2-Chlorotoluene	126	13.179	13.179	0.000	97	338837	10.0	9.80	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
127 1,3,5-Trimethylbenzene	105	13.284	13.284	0.000	94	1330864	10.0	9.65	
128 4-Chlorotoluene	126	13.301	13.301	0.000	98	423725	10.0	9.48	
129 tert-Butylbenzene	119	13.667	13.667	0.000	94	1430817	10.0	9.56	
130 1,2,4-Trimethylbenzene	105	13.719	13.719	0.000	96	1271892	10.0	9.71	
131 sec-Butylbenzene	134	13.911	13.911	0.000	95	373548	10.0	9.46	
132 1,3-Dichlorobenzene	146	14.032	14.032	0.000	97	625296	10.0	9.79	
133 4-Isopropyltoluene	119	14.067	14.067	0.000	98	1662914	10.0	9.79	
134 1,4-Dichlorobenzene	146	14.137	14.137	0.000	93	907990	10.0	9.20	
137 n-Butylbenzene	91	14.503	14.503	0.000	98	1720110	10.0	9.64	
138 1,2-Dichlorobenzene	146	14.520	14.520	0.000	96	639772	10.0	9.54	
139 1,2-Dibromo-3-Chloropropan	157	15.303	15.303	0.000	78	57879	10.0	9.25	
144 1,2,3-Trichlorobenzene	180	16.069	16.069	0.000	93	426564	10.0	9.47	
142 Hexachlorobutadiene	225	16.226	16.226	0.000	97	448485	10.0	9.55	
143 Naphthalene	128	16.296	16.296	0.000	98	472837	10.0	9.23	
141 1,2,4-Trichlorobenzene	180	16.522	16.522	0.000	94	341128	10.0	9.62	
S 151 1,2-Dichloroethene, Total	96				0		20.0	19.5	
S 149 1,2-Dichloroethene, Total	1				0		20.0	19.5	
S 150 Xylenes, Total	106				0		20.0	20.3	
S 148 1,3-Dichloropropene, Total	1				0		20.0	19.2	
S 145 Trihalomethanes, Total	1				0		40.0	39.1	
S 146 Xylenes, Total (URS)	1				0		20.0	20.3	
S 147 Total BTEX	1				0			50.1	

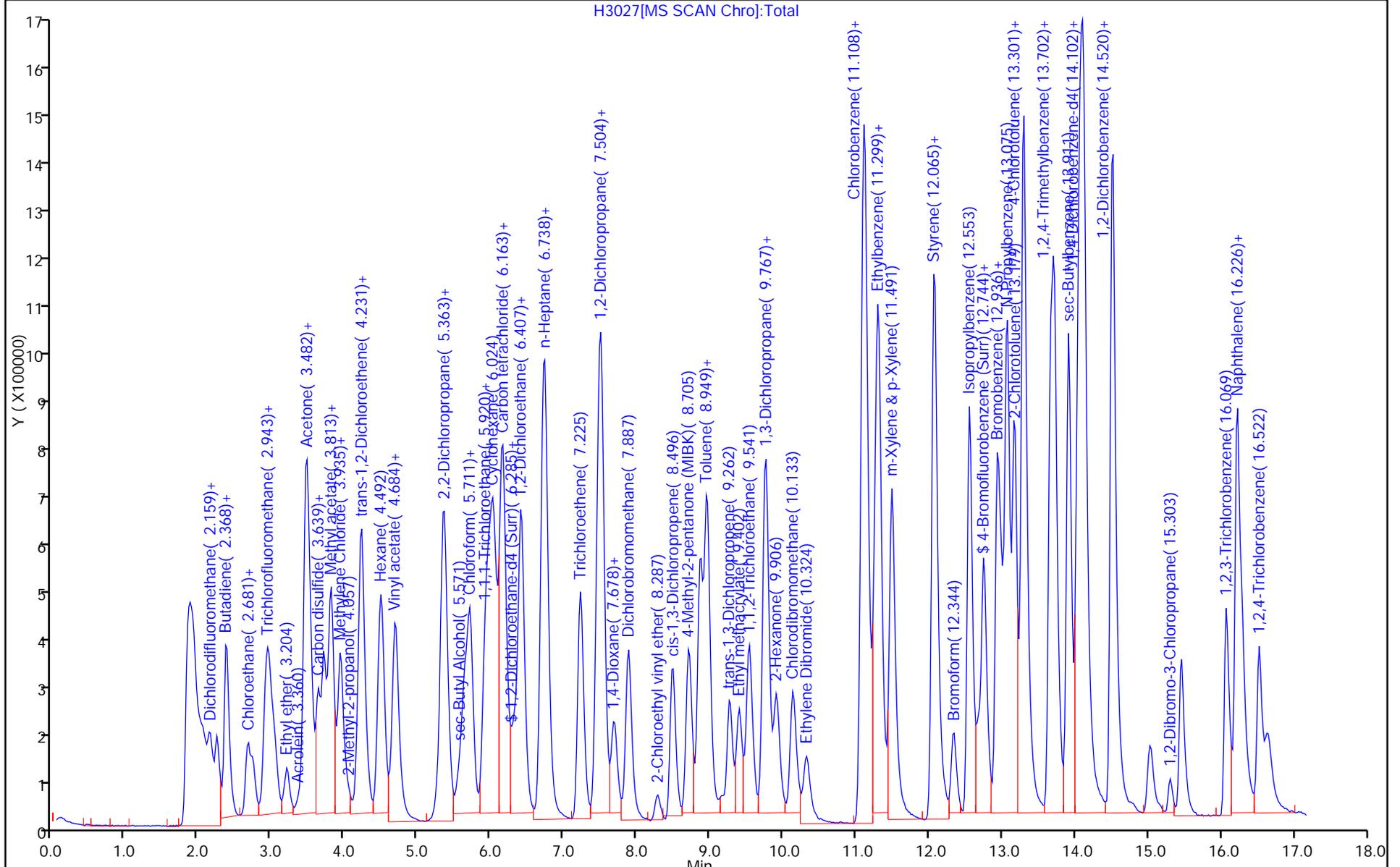
QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MV-Main A_00022	Amount Added: 5.00	Units: uL	
MV-Gas/Ket A_00033	Amount Added: 5.00	Units: uL	
MV-2cleve+AVA_00009	Amount Added: 5.00	Units: uL	
MV-568718-D_00002	Amount Added: 1.00	Units: uL	Run Reagent
MV-ARCH SS A_00042	Amount Added: 0.68	Units: uL	Run Reagent



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2946.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 27-May-2015 23:12:30 ALS Bottle#: 100 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Sample Info: bfb
 Operator ID: BERGERB Instrument ID: VMS_H
 Method: \\Denchrom\ChromData\VMS_H\20150528-35452.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 28-May-2015 07:24:25 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK018

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
\$ 7 BFB	95	2.473	2.473	0.000	80	242466	NR	NR	7

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

7 - Failed Limit of Detection

Reagents:

MV-BFB_00018

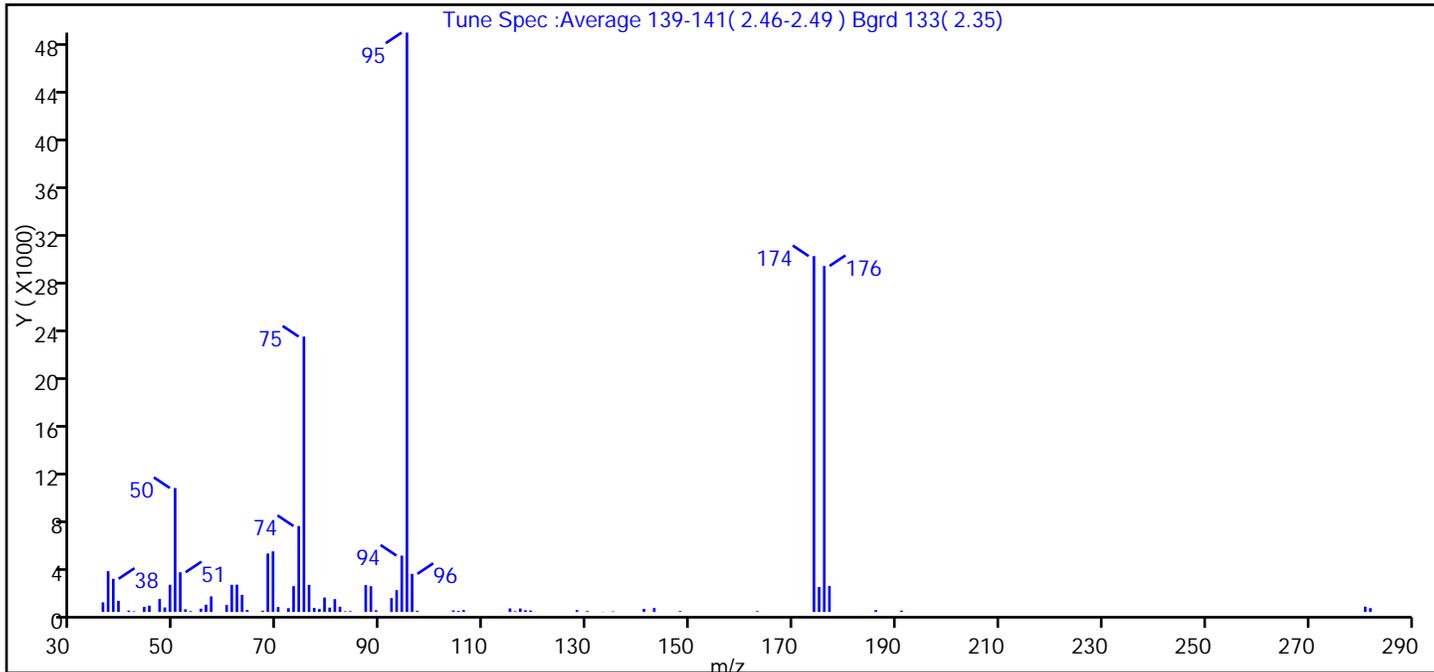
Amount Added: 1.00

Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2946.D
 Injection Date: 27-May-2015 23:12:30 Instrument ID: VMS_H
 Lims ID: BFB
 Client ID:
 Operator ID: BERGERB ALS Bottle#: 100 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
 Tune Method: BFB Method 8260

\$ 7 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.4
75	30 to 60% of m/z 95	47.5
96	5 to 9% of m/z 95	6.6
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	61.4
175	5 to 9% of m/z 174	4.3 (7.0)
176	Greater than 95% but less than 101% of m/z 174	59.7 (97.2)
177	5 to 9% of m/z 176	4.5 (7.5)

Data File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2946.D\AQ_VMSH_8260.rslt\spectra.d
 Injection Date: 27-May-2015 23:12:30
 Spectrum: Tune Spec :Average 139-141(2.46-2.49) Bgrd 133(2.35)
 Base Peak: 95.00
 Minimum % Base Peak: 0
 Number of Points: 74

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	809	61.00	2285	83.00	52	128.00	159
37.00	3436	62.00	2299	84.00	69	130.00	74
38.00	2792	63.00	1438	87.00	2266	133.00	20
39.00	939	64.00	173	88.00	2165	135.00	48
41.00	117	67.00	104	89.00	142	141.00	257
42.00	54	68.00	4921	92.00	1170	143.00	334
44.00	430	69.00	5103	93.00	1837	148.00	76
45.00	530	70.00	417	94.00	4743	163.00	72
47.00	1090	72.00	320	95.00	48776	170.00	1
48.00	381	73.00	2173	96.00	3207	174.00	29960
49.00	2291	74.00	7234	97.00	103	175.00	2097
50.00	10434	75.00	23184	104.00	132	176.00	29128
51.00	3342	76.00	2287	105.00	89	177.00	2198
52.00	227	77.00	342	106.00	160	186.00	156
53.00	70	78.00	250	115.00	296	191.00	111
55.00	277	79.00	1215	116.00	67	281.00	446
56.00	610	80.00	368	117.00	292	282.00	322
57.00	1309	81.00	1081	118.00	144		
60.00	584	82.00	442	119.00	128		

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H2997.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 28-May-2015 18:54:30 ALS Bottle#: 100 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Sample Info: BFB
 Operator ID: bergerb Instrument ID: VMS_H
 Method: \\Denchrom\ChromData\VMS_H\20150528-35487.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 29-May-2015 17:54:23 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK049

First Level Reviewer: bergerb Date: 29-May-2015 17:54:23

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
\$ 7 BFB	95	2.475	2.475	0.000	78	259559	NR	NR	7

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

7 - Failed Limit of Detection

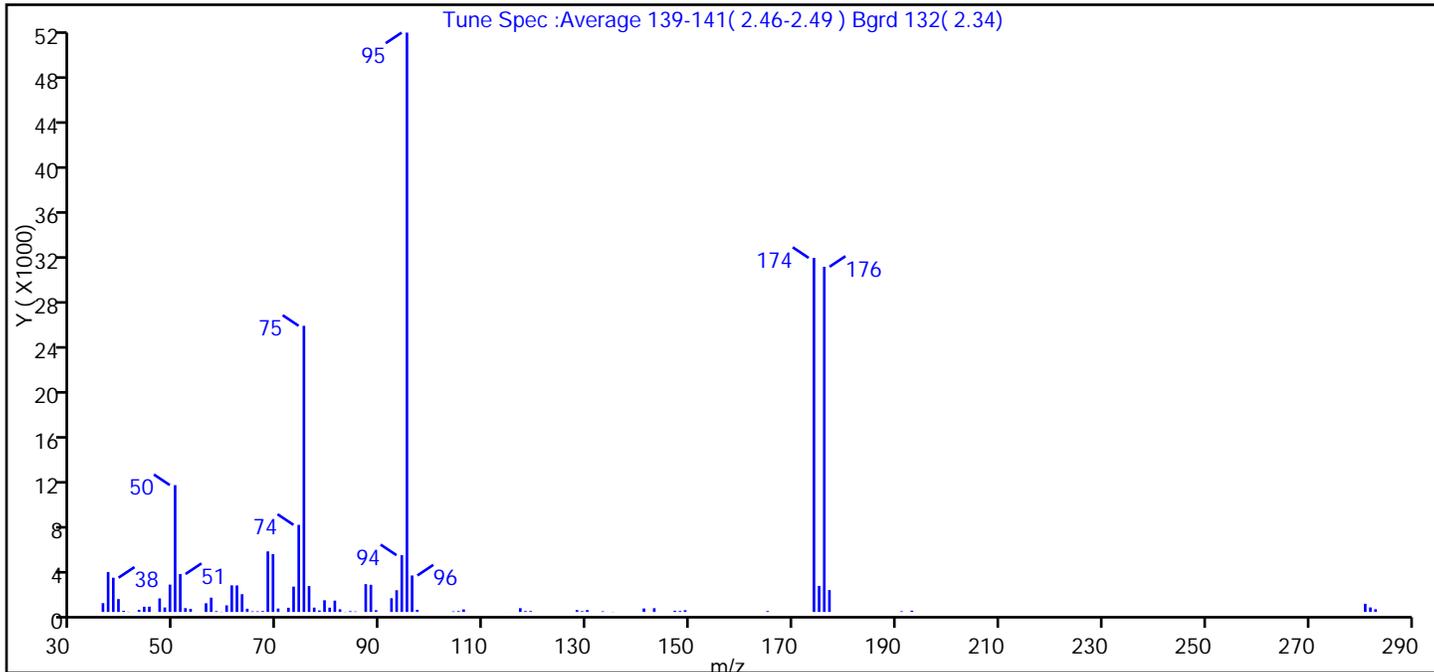
Reagents:

MV-BFB_00018 Amount Added: 1.00 Units: uL

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H2997.D
 Injection Date: 28-May-2015 18:54:30 Instrument ID: VMS_H
 Lims ID: BFB
 Client ID:
 Operator ID: bergerb ALS Bottle#: 100 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
 Tune Method: BFB Method 8260

\$ 7 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.9
75	30 to 60% of m/z 95	49.4
96	5 to 9% of m/z 95	6.3
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	61.1
175	5 to 9% of m/z 174	4.5 (7.4)
176	Greater than 95% but less than 101% of m/z 174	59.6 (97.5)
177	5 to 9% of m/z 176	3.8 (6.3)

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H2997.D\AQ_VMSH_8260.rslt\spectra.d
Injection Date: 28-May-2015 18:54:30
Spectrum: Tune Spec :Average 139-141(2.46-2.49) Bgrd 132(2.34)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 82

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	787	60.00	590	82.00	239	129.00	69
37.00	3565	61.00	2374	83.00	16	130.00	169
38.00	3060	62.00	2368	84.00	69	133.00	55
39.00	1151	63.00	1588	85.00	39	135.00	14
40.00	101	64.00	287	87.00	2484	141.00	312
41.00	18	65.00	54	88.00	2427	143.00	335
42.00	5	66.00	55	89.00	155	147.00	103
43.00	188	67.00	79	92.00	1227	148.00	83
44.00	464	68.00	5408	93.00	1939	149.00	157
45.00	473	69.00	5166	94.00	5071	165.00	77
47.00	1209	70.00	309	95.00	51736	174.00	31616
48.00	400	72.00	376	96.00	3259	175.00	2327
49.00	2443	73.00	2264	97.00	191	176.00	30824
50.00	11326	74.00	7779	104.00	50	177.00	1954
51.00	3389	75.00	25552	105.00	76	191.00	62
52.00	343	76.00	2316	106.00	227	193.00	115
53.00	273	77.00	388	115.00	3	281.00	729
56.00	777	78.00	135	117.00	339	282.00	404
57.00	1274	79.00	1044	118.00	78	283.00	247
58.00	72	80.00	385	119.00	80		
59.00	20	81.00	1011	128.00	169		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 280-279458/6
 Matrix: Water Lab File ID: H3003.D
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 05/28/2015 21:10
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279458 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	0.40	U	1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.20
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	0.80	U	1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	0.80	U	1.0	0.80	0.18
96-18-4	1,2,3-Trichloropropane	0.80	U	3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	0.40	U	1.0	0.40	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.81
106-93-4	1,2-Dibromoethane	0.40	U	1.0	0.40	0.18
95-50-1	1,2-Dichlorobenzene	0.40	U	1.0	0.40	0.13
107-06-2	1,2-Dichloroethane	0.40	U	1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	0.40	U	1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	0.40	U	1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	0.80	U	1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	4.0	U	6.0	4.0	1.8
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	4.0	U	5.0	4.0	1.4
106-43-4	4-Chlorotoluene	0.80	U	1.0	0.80	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	1.0
67-64-1	Acetone	6.4	U	10	6.4	1.9
71-43-2	Benzene	0.40	U	1.0	0.40	0.16
108-86-1	Bromobenzene	0.40	U	1.0	0.40	0.17
74-97-5	Bromochloromethane	0.20	U	1.0	0.20	0.10
75-27-4	Bromodichloromethane	0.40	U	1.0	0.40	0.17
75-25-2	Bromoform	0.40	U	1.0	0.40	0.19
74-83-9	Bromomethane	0.80	U	2.0	0.80	0.21
75-15-0	Carbon disulfide	1.6	U	2.0	1.6	0.45
56-23-5	Carbon tetrachloride	0.40	U	2.0	0.40	0.19
108-90-7	Chlorobenzene	0.40	U	1.0	0.40	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 280-279458/6
 Matrix: Water Lab File ID: H3003.D
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 05/28/2015 21:10
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279458 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-48-1	Chlorodibromomethane	0.40	U	1.0	0.40	0.17
75-00-3	Chloroethane	1.6	U	2.0	1.6	0.41
67-66-3	Chloroform	0.40	U	1.0	0.40	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.16
87-68-3	Hexachlorobutadiene	0.80	U	1.0	0.80	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
1634-04-4	Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25
75-09-2	Methylene Chloride	0.661	J	5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.34
91-20-3	Naphthalene	0.80	U	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.80	U	1.0	0.80	0.32
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
99-87-6	p-Isopropyltoluene	0.40	U	1.0	0.40	0.17
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
100-42-5	Styrene	0.40	U	1.0	0.40	0.17
75-65-0	tert-Butyl alcohol	32	U	50	32	11
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	0.40	U	1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.20	U	1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 280-279458/6
 Matrix: Water Lab File ID: H3003.D
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 05/28/2015 21:10
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279458 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		81-118
460-00-4	4-Bromofluorobenzene (Surr)	101		85-114
1868-53-7	Dibromofluoromethane (Surr)	98		80-119
2037-26-5	Toluene-d8 (Surr)	100		89-112

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H3003.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 28-May-2015 21:10:30 ALS Bottle#: 6 Worklist Smp#: 6
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: MB AF
 Operator ID: bergerb Instrument ID: VMS_H
 Method: \\Denchrom\ChromData\VMS_H\20150528-35487.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 29-May-2015 17:53:21 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK049

First Level Reviewer: bergerb Date: 29-May-2015 17:54:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.993	3.970	0.023	97	212852	250.0	250.0	
* 2 Fluorobenzene	96	6.761	6.755	0.006	97	1139866	12.5	12.5	
* 3 1,4-Dioxane-d8	96		8.670					ND	
* 4 Chlorobenzene-d5	119	11.114	11.090	0.024	92	259345	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.126	14.102	0.024	98	410461	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.943	5.920	0.023	93	480972	8.50	8.35	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	6.361	6.337	0.024	83	257090	8.50	8.06	
\$ 10 Toluene-d8 (Surr)	98	8.885	8.862	0.023	95	1075421	8.50	8.50	
\$ 11 4-Bromofluorobenzene (Surr	95	12.768	12.744	0.024	81	604204	8.50	8.60	
\$ 152 Trifluorotoluene (Surr)	1		0.000					ND	
\$ 7 BFB	95	2.357	2.475	-0.118	0	1152		NR	7
28 Dichlorodifluoromethane	85		2.159					ND	
27 Chlorotrifluoroethene	116		2.173					ND	
30 Chloromethane	50		2.246					ND	
29 1,2-Dichloro-1,1,2,2-tetra	85		2.329					ND	
31 Butadiene	54		2.368					ND	
32 Vinyl chloride	62		2.385					ND	
33 2-Chloro-1,1,1-Trifluoroet	118		2.521					ND	
34 Ethylene oxide	43		2.635					ND	
35 Bromomethane	94		2.681					ND	
36 Chloroethane	64		2.751					ND	
37 Dichlorofluoromethane	67		2.925					ND	
38 Trichlorofluoromethane	101		2.977					ND	
39 Ethanol	45		3.140					ND	
40 Ethyl ether	59		3.204					ND	
43 Propene oxide	58		3.297					ND	
41 1,2-Dichloro-1,1,2-trifluo	117		3.322					ND	
44 Acrolein	56		3.360					ND	
42 1,1,1-Trifluoro-2,2-dichlo	83		3.374					ND	
45 1,1-Dichloroethene	96		3.465					ND	
46 1,1,2-Trichloro-1,2,2-trif	151		3.482					ND	
47 Acetone	43		3.500					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
49 Isopropyl alcohol	45		3.628					ND	
48 Iodomethane	142		3.639					ND	
50 Carbon disulfide	76		3.709					ND	
51 Acetonitrile	41		3.802					ND	
52 3-Chloro-1-propene	41		3.813					ND	
53 Methyl acetate	43		3.813					ND	
54 Methylene Chloride	84	3.958	3.935	0.023	98	32661		0.6612	
55 2-Methyl-2-propanol	59		4.057					ND	
57 Acrylonitrile	53		4.196					ND	
58 trans-1,2-Dichloroethene	96		4.231					ND	
56 Methyl tert-butyl ether	73		4.231					ND	
59 Hexane	57		4.492					ND	
60 1,1-Dichloroethane	63		4.684					ND	
61 Vinyl acetate	43		4.701					ND	
62 Isopropyl ether	87		4.759					ND	
63 2-Chloro-1,3-butadiene	53		4.794					ND	
64 Tert-butyl ethyl ether	59		5.177					ND	
67 2-Butanone (MEK)	43		5.345					ND	
66 2,2-Dichloropropane	77		5.363					ND	
65 cis-1,2-Dichloroethene	96		5.363					ND	
69 Ethyl acetate	43		5.421					ND	
70 Propionitrile	54		5.456					ND	
71 sec-Butyl Alcohol	45		5.571					ND	
72 Methacrylonitrile	41		5.612					ND	
73 Chlorobromomethane	128		5.641					ND	
74 Tetrahydrofuran	42		5.711					ND	
75 Chloroform	83		5.711					ND	
76 1,1,1-Trichloroethane	97		5.972					ND	
77 Cyclohexane	56		6.042					ND	
78 1,1-Dichloropropene	75		6.146					ND	
79 Carbon tetrachloride	117		6.181					ND	
80 Isobutyl alcohol	41		6.285					ND	
81 Benzene	78		6.407					ND	
82 1,2-Dichloroethane	62		6.425					ND	
83 Tert-amyl methyl ether	73		6.552					ND	
84 n-Heptane	43		6.703					ND	
85 n-Butanol	56		7.144					ND	
86 Trichloroethene	95		7.225					ND	
87 Ethyl acrylate	55	7.371	7.353	0.018	0	316		NC	
88 2-Pentanone	43		7.452					ND	
89 Methylcyclohexane	55		7.486					ND	
90 1,2-Dichloropropane	63		7.521					ND	
91 Methyl methacrylate	100		7.667					ND	
92 Dibromomethane	93		7.678					ND	
93 1,4-Dioxane	88		7.695					ND	
94 Dichlorobromomethane	83		7.887					ND	
95 2-Nitropropane	41		8.206					ND	
96 2-Chloroethyl vinyl ether	63		8.287					ND	
97 cis-1,3-Dichloropropene	75		8.479					ND	
98 4-Methyl-2-pentanone (MIBK)	43		8.705					ND	
99 Toluene	91		8.966					ND	
100 trans-1,3-Dichloropropene	75		9.280					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
101 Ethyl methacrylate	69		9.402					ND	
102 1,1,2-Trichloroethane	97		9.541					ND	
103 Tetrachloroethene	164		9.750					ND	
104 1,3-Dichloropropane	76		9.785					ND	
105 2-Hexanone	43		9.906					ND	
108 Chlorodibromomethane	129		10.133					ND	
107 Tetrahydrothiophene	60		10.139					ND	
106 n-Butyl acetate	43	10.208	10.226	-0.018	0	470		NC	
109 Ethylene Dibromide	107		10.324					ND	
110 1-Chlorohexane	91		11.108					ND	
111 Chlorobenzene	112		11.143					ND	
112 1,1,1,2-Tetrachloroethane	131		11.282					ND	
113 Ethylbenzene	106		11.317					ND	
114 m-Xylene & p-Xylene	106		11.491					ND	
115 o-Xylene	106		12.065					ND	
116 Styrene	104		12.083					ND	
117 Bromoform	173		12.344					ND	
118 Isopropylbenzene	105		12.553					ND	
119 cis-1,4-Dichloro-2-butene	53		12.663					ND	
120 Cyclohexanone	55		12.675					ND	
122 Bromobenzene	156		12.936					ND	
121 1,1,2,2-Tetrachloroethane	83		12.936					ND	
123 1,2,3-Trichloropropane	110		12.988					ND	
124 trans-1,4-Dichloro-2-buten	53		13.005					ND	
125 N-Propylbenzene	120		13.075					ND	
126 2-Chlorotoluene	126		13.179					ND	
127 1,3,5-Trimethylbenzene	105		13.284					ND	
128 4-Chlorotoluene	126		13.301					ND	
129 tert-Butylbenzene	119		13.667					ND	
130 1,2,4-Trimethylbenzene	105		13.719					ND	
22 Pentachloroethane	167		13.721					ND	
131 sec-Butylbenzene	134		13.911					ND	
132 1,3-Dichlorobenzene	146		14.032					ND	
133 4-Isopropyltoluene	119		14.067					ND	
134 1,4-Dichlorobenzene	146		14.137					ND	
135 1,2,3-Trimethylbenzene	105		14.195					ND	
136 Benzyl chloride	126		14.352					ND	
137 n-Butylbenzene	91		14.503					ND	
138 1,2-Dichlorobenzene	146		14.520					ND	
139 1,2-Dibromo-3-Chloropropan	157		15.303					ND	
140 1,3,5-Trichlorobenzene	180		15.518					ND	
144 1,2,3-Trichlorobenzene	180		16.069					ND	
142 Hexachlorobutadiene	225		16.226					ND	
143 Naphthalene	128		16.296					ND	
141 1,2,4-Trichlorobenzene	180		16.522					ND	
20 2-Methylnaphthalene	142		0.000					ND	
18 2,2-Dimethylpentane	1		0.000					ND	
158 Dicyclopentadiene	1		0.000					ND	
15 Dimethyl disulfide	1		0.000					ND	
14 2-Butoxyethanol TIC	1		0.000					ND	
23 2-Methylhexane	1		0.000					ND	
24 3-Methylhexane	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
19 2,3-Dimethylpentane	1		0.000					ND	
21 2,4-Dimethylpentane	1		0.000					ND	
159 4-Ethyltoluene	1		0.000					ND	
16 3,3-Dimethylpentane	1		0.000					ND	
17 2,2,3-Trimethylbutane	1		0.000					ND	
12 3-Ethylpentane	1		0.000					ND	
13 n-Nonyl Aldehyde	1		0.000					ND	
157 Propene	1		0.000					ND	
S 151 1,2-Dichloroethene, Total	96		2.000					ND	
S 145 Trihalomethanes, Total	1		0.000					ND	
S 146 Xylenes, Total (URS)	1		0.000					ND	
S 147 Total BTEX	1		0.000					ND	
S 148 1,3-Dichloropropene, Total	1		0.000					ND	
S 149 1,2-Dichloroethene, Total	1		0.000					ND	
S 150 Xylenes, Total	106		0.000					ND	
S 160 TAH	1				0			0	
T 25 Dichloroacetonitrile TIC	74		1.000					ND	
T 26 2,3-dichloro-1-propene TIC	75		1.000					ND	
T 68 Propene oxide TIC	58		5.334					ND	
T 153 Propene TIC	1		0.000					ND	
T 155 4-Ethyltoluene TIC	1		0.000					ND	
T 154 Dicyclopentadiene TIC	1		0.000					ND	
T 156 1,3-Butadiene TIC	1		0.000					ND	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

NC - Not Calibrated

7 - Failed Limit of Detection

Reagents:

MV-568718-D_00002

Amount Added: 1.00

Units: uL

Run Reagent

MV-ARCH SS A_00042

Amount Added: 0.68

Units: uL

Run Reagent

TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H3003.D

Injection Date: 28-May-2015 21:10:30

Instrument ID: VMS_H

Operator ID: bergerb

Lims ID: MB

Worklist Smp#: 6

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

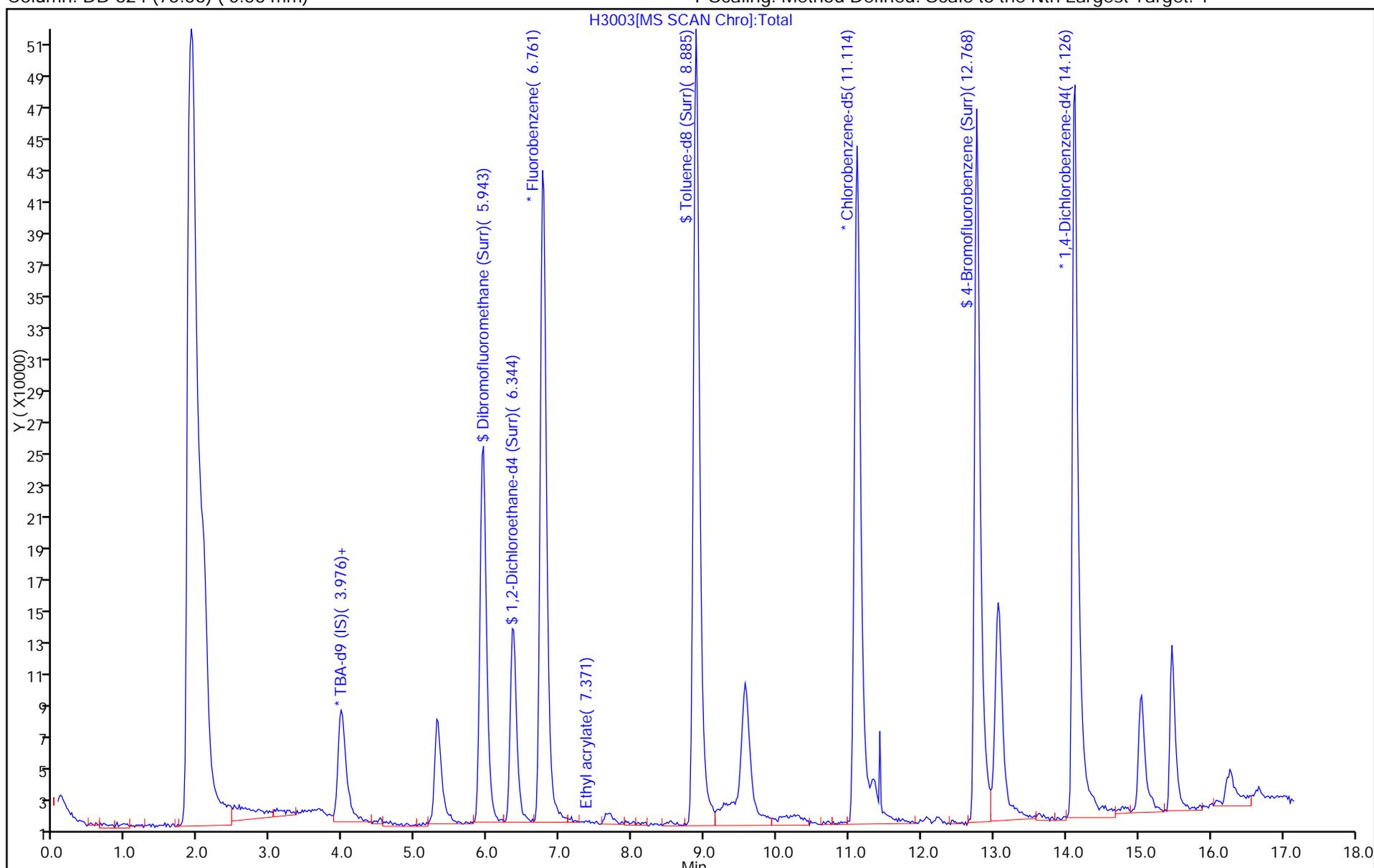
ALS Bottle#: 6

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H3003.D

Injection Date: 28-May-2015 21:10:30

Instrument ID: VMS_H

Lims ID: MB

Client ID:

Operator ID: bergerb

ALS Bottle#: 6

Worklist Smp#: 6

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

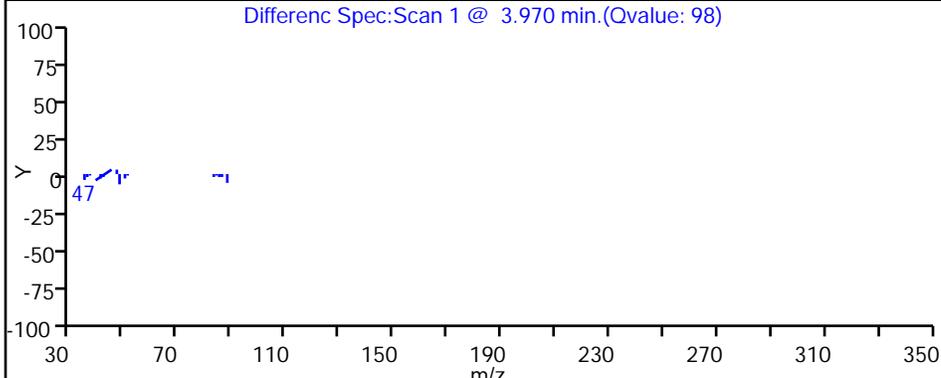
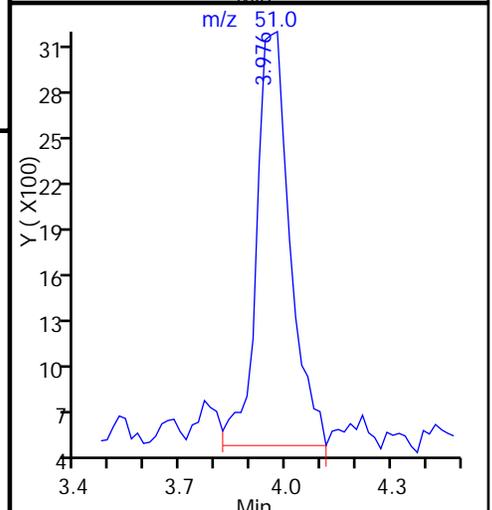
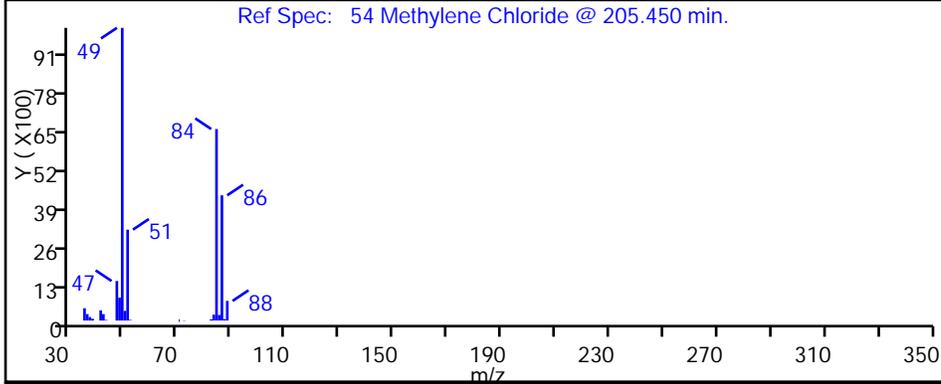
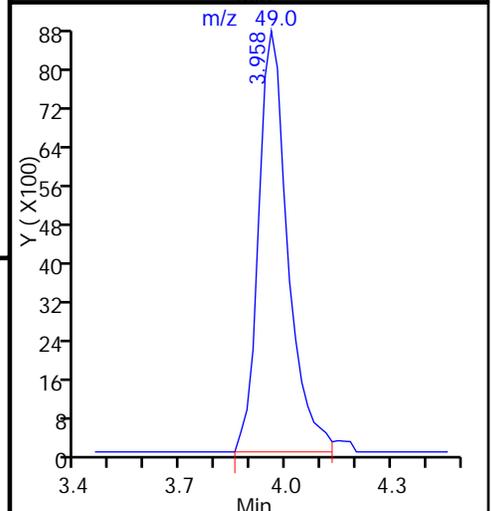
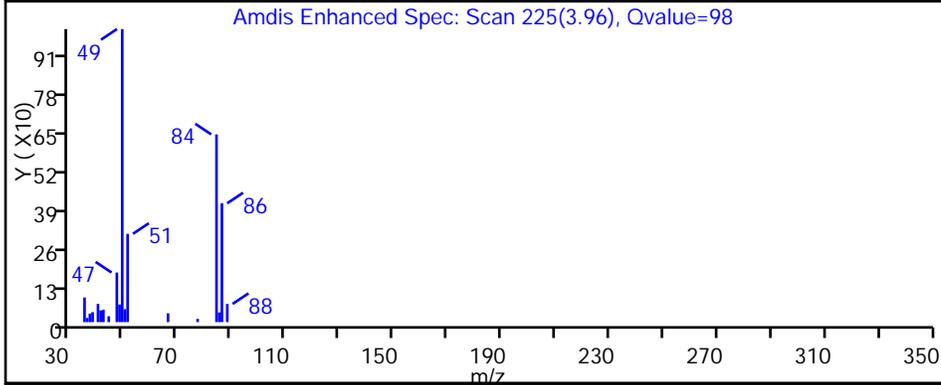
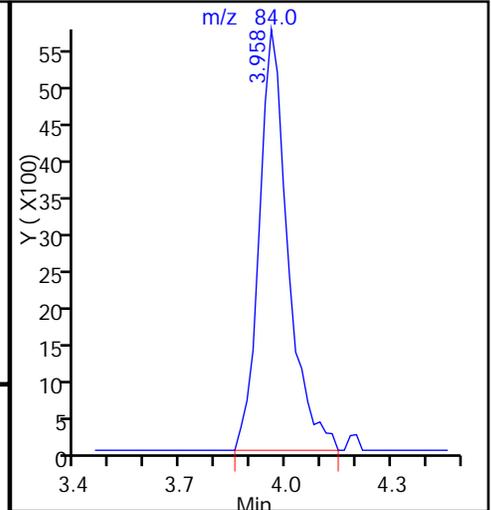
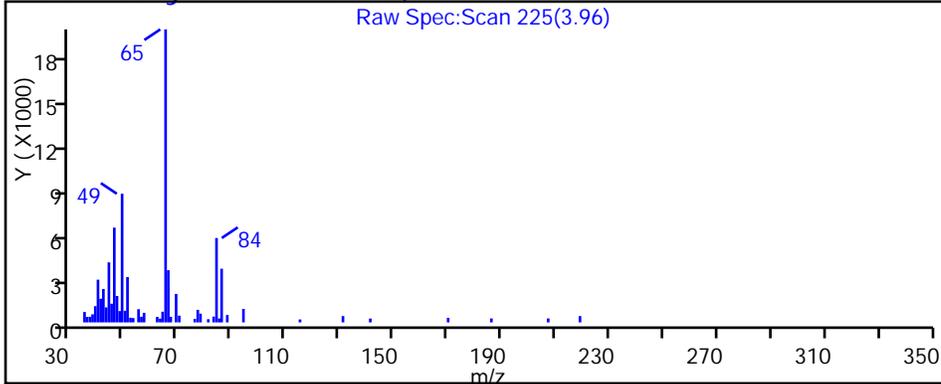
Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Detector: MS SCAN

54 Methylene Chloride, CAS: 75-09-2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 280-279458/4
 Matrix: Water Lab File ID: H3001.D
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 05/28/2015 20:25
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279458 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	5.08		1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	4.84		1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	4.78		1.0	0.80	0.20
79-00-5	1,1,2-Trichloroethane	4.98		1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	4.83		1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	4.75		1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	4.98		1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	5.19		1.0	0.80	0.18
96-18-4	1,2,3-Trichloropropane	4.77		3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	5.11		1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	4.72		1.0	0.40	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	5.13		5.0	1.6	0.81
106-93-4	1,2-Dibromoethane	5.07		1.0	0.40	0.18
95-50-1	1,2-Dichlorobenzene	5.01		1.0	0.40	0.13
107-06-2	1,2-Dichloroethane	4.89		1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	4.80		1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	4.81		1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	4.58		1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	4.84		1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	5.17		1.0	0.40	0.16
594-20-7	2,2-Dichloropropane	4.78		1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	21.0		6.0	4.0	1.8
95-49-8	2-Chlorotoluene	4.74		1.0	0.40	0.17
591-78-6	2-Hexanone	20.9		5.0	4.0	1.4
106-43-4	4-Chlorotoluene	4.93		1.0	0.80	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	21.6		5.0	3.2	1.0
67-64-1	Acetone	18.1		10	6.4	1.9
71-43-2	Benzene	5.00		1.0	0.40	0.16
108-86-1	Bromobenzene	4.86		1.0	0.40	0.17
74-97-5	Bromochloromethane	4.96		1.0	0.20	0.10
75-27-4	Bromodichloromethane	4.89		1.0	0.40	0.17
75-25-2	Bromoform	5.18		1.0	0.40	0.19
74-83-9	Bromomethane	5.40		2.0	0.80	0.21
75-15-0	Carbon disulfide	4.62		2.0	1.6	0.45
56-23-5	Carbon tetrachloride	4.83		2.0	0.40	0.19
108-90-7	Chlorobenzene	5.02		1.0	0.40	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 280-279458/4
 Matrix: Water Lab File ID: H3001.D
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 05/28/2015 20:25
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279458 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-48-1	Chlorodibromomethane	5.15		1.0	0.40	0.17
75-00-3	Chloroethane	5.36		2.0	1.6	0.41
67-66-3	Chloroform	4.88		1.0	0.40	0.16
74-87-3	Chloromethane	5.32		2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	4.80		1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	5.19		1.0	0.40	0.16
74-95-3	Dibromomethane	4.73		1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	5.86		2.0	0.80	0.31
100-41-4	Ethylbenzene	4.91		1.0	0.40	0.16
87-68-3	Hexachlorobutadiene	4.97		1.0	0.80	0.36
98-82-8	Isopropylbenzene	4.83		1.0	0.40	0.19
1634-04-4	Methyl tert-butyl ether	5.03		5.0	0.80	0.25
75-09-2	Methylene Chloride	5.93		5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	5.11		2.0	0.80	0.34
91-20-3	Naphthalene	5.09		1.0	0.80	0.22
104-51-8	n-Butylbenzene	4.76		1.0	0.80	0.32
103-65-1	N-Propylbenzene	4.79		1.0	0.40	0.16
95-47-6	o-Xylene	4.95		1.0	0.40	0.19
99-87-6	p-Isopropyltoluene	4.92		1.0	0.40	0.17
135-98-8	sec-Butylbenzene	4.73		1.0	0.40	0.17
100-42-5	Styrene	4.91		1.0	0.40	0.17
75-65-0	tert-Butyl alcohol	54.5		50	32	11
98-06-6	tert-Butylbenzene	4.75		1.0	0.40	0.16
127-18-4	Tetrachloroethene	5.00		1.0	0.40	0.20
108-88-3	Toluene	4.90		1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	4.84		1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	5.20		1.0	0.40	0.19
79-01-6	Trichloroethene	5.05		1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	5.50		2.0	0.80	0.29
75-01-4	Vinyl chloride	5.41		1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 280-279458/4
 Matrix: Water Lab File ID: H3001.D
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 05/28/2015 20:25
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 (75.53) ID: 0.53 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279458 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		81-118
460-00-4	4-Bromofluorobenzene (Surr)	102		85-114
1868-53-7	Dibromofluoromethane (Surr)	96		80-119
2037-26-5	Toluene-d8 (Surr)	104		89-112

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H3001.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 28-May-2015 20:25:30 ALS Bottle#: 4 Worklist Smp#: 4
 Purge Vol: 20.000 mL Dil. Factor: 1.0000
 Sample Info: LCS
 Operator ID: bergerb Instrument ID: VMS_H
 Method: \\Denchrom\ChromData\VMS_H\20150528-35487.b\AQ_VMSH_8260.m
 Limit Group: MSV - 8260B Water and Solid
 Last Update: 29-May-2015 17:53:21 Calib Date: 28-May-2015 05:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\Denchrom\ChromData\VMS_H\20150528-35452.b\H2962.D
 Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
 Process Host: XAWRK049

First Level Reviewer: bergerb

Date: 29-May-2015 17:54:10

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.987	3.970	0.017	98	208047	250.0	250.0	
* 2 Fluorobenzene	96	6.755	6.755	0.000	96	1178561	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.108	11.090	0.018	91	258327	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.119	14.102	0.017	97	436380	12.5	12.5	
\$ 8 Dibromofluoromethane (Surr	111	5.937	5.920	0.017	93	487618	8.50	8.19	
\$ 9 1,2-Dichloroethane-d4 (Sur	65	6.355	6.337	0.018	83	270851	8.50	8.21	
\$ 10 Toluene-d8 (Surr)	98	8.879	8.862	0.017	95	1112380	8.50	8.83	
\$ 11 4-Bromofluorobenzene (Surr	95	12.762	12.744	0.018	81	645267	8.50	8.64	
28 Dichlorodifluoromethane	85	2.159	2.159	0.000	98	330554	5.00	5.86	
30 Chloromethane	50	2.264	2.246	0.018	99	195364	5.00	5.32	
31 Butadiene	54	2.385	2.368	0.017	0	155267	NC	NC	
32 Vinyl chloride	62	2.385	2.385	0.000	98	194122	5.00	5.41	
35 Bromomethane	94	2.681	2.681	0.000	90	160946	5.00	5.40	
36 Chloroethane	64	2.751	2.751	0.000	100	116841	5.00	5.36	
37 Dichlorofluoromethane	67	2.925	2.925	0.000	98	436689	5.00	5.52	
38 Trichlorofluoromethane	101	2.995	2.977	0.018	99	389367	5.00	5.50	
40 Ethyl ether	59	3.221	3.204	0.017	95	95871	5.00	5.13	
44 Acrolein	56	3.378	3.360	0.018	98	40583	50.0	31.5	
45 1,1-Dichloroethene	96	3.482	3.465	0.017	95	167196	5.00	4.75	
46 1,1,2-Trichloro-1,2,2-trif	151	3.500	3.482	0.018	97	225048	5.00	4.69	
47 Acetone	43	3.517	3.500	0.017	39	66238	20.0	18.1	
48 Iodomethane	142	3.656	3.639	0.017	99	392591	5.00	4.96	
50 Carbon disulfide	76	3.726	3.709	0.017	100	627485	5.00	4.62	
52 3-Chloro-1-propene	41	3.830	3.813	0.017	93	373440	5.00	4.57	
53 Methyl acetate	43	3.830	3.813	0.017	98	283629	25.0	23.9	
54 Methylene Chloride	84	3.952	3.935	0.017	98	190826	5.00	5.93	
55 2-Methyl-2-propanol	59	4.074	4.057	0.017	91	57119	50.0	54.5	
57 Acrylonitrile	53	4.213	4.196	0.017	98	148563	50.0	48.4	
58 trans-1,2-Dichloroethene	96	4.248	4.231	0.017	94	191502	5.00	4.84	
56 Methyl tert-butyl ether	73	4.248	4.231	0.017	91	337542	5.00	5.03	
59 Hexane	57	4.509	4.492	0.017	95	341829	5.00	4.93	
60 1,1-Dichloroethane	63	4.701	4.684	0.017	96	403577	5.00	4.83	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
61 Vinyl acetate	43	4.718	4.701	0.017	96	467601	10.0	9.03	
67 2-Butanone (MEK)	43	5.362	5.345	0.017	51	141952	20.0	21.0	
66 2,2-Dichloropropane	77	5.380	5.363	0.017	91	383365	5.00	4.78	
65 cis-1,2-Dichloroethene	96	5.362	5.363	-0.001	88	191435	5.00	4.80	
71 sec-Butyl Alcohol	45	5.589	5.571	0.018	96	207134	150.0	139.1	
73 Chlorobromomethane	128	5.641	5.641	0.000	90	86871	5.00	4.96	
74 Tetrahydrofuran	42	5.711	5.711	0.000	41	47509	10.0	9.76	
75 Chloroform	83	5.728	5.711	0.017	95	380880	5.00	4.88	
76 1,1,1-Trichloroethane	97	5.989	5.972	0.017	96	361202	5.00	4.84	
77 Cyclohexane	56	6.059	6.042	0.017	97	390836	5.00	4.75	
78 1,1-Dichloropropene	75	6.163	6.146	0.017	92	332828	5.00	4.98	
79 Carbon tetrachloride	117	6.181	6.181	0.000	99	334999	5.00	4.83	
80 Isobutyl alcohol	41	6.303	6.285	0.018	91	64724	125.0	124.1	
81 Benzene	78	6.424	6.407	0.017	98	617242	5.00	5.00	
82 1,2-Dichloroethane	62	6.442	6.425	0.018	96	182447	5.00	4.89	
84 n-Heptane	43	6.720	6.703	0.017	97	533009	5.00	4.88	
86 Trichloroethene	95	7.243	7.225	0.018	96	253600	5.00	5.05	
88 2-Pentanone	43	7.469	7.452	0.017	84	357692	20.0	19.1	
89 Methylcyclohexane	55	7.504	7.486	0.018	92	358919	5.00	4.90	
90 1,2-Dichloropropane	63	7.539	7.521	0.018	95	236721	5.00	4.80	
92 Dibromomethane	93	7.695	7.678	0.017	92	116301	5.00	4.73	
93 1,4-Dioxane	88	7.748	7.695	0.053	30	10918	100.0	85.7	
94 Dichlorobromomethane	83	7.904	7.887	0.017	98	351106	5.00	4.89	
96 2-Chloroethyl vinyl ether	63	8.287	8.287	0.000	89	35502	5.00	4.03	
97 cis-1,3-Dichloropropene	75	8.496	8.479	0.017	91	316154	5.00	5.19	
98 4-Methyl-2-pentanone (MIBK)	43	8.723	8.705	0.018	96	540426	20.0	21.6	
99 Toluene	91	8.966	8.966	0.000	97	693166	5.00	4.90	
100 trans-1,3-Dichloropropene	75	9.280	9.280	0.000	98	235004	5.00	5.20	
101 Ethyl methacrylate	69	9.419	9.402	0.017	97	200801	5.00	5.37	
102 1,1,2-Trichloroethane	97	9.558	9.541	0.017	84	141164	5.00	4.98	
103 Tetrachloroethene	164	9.767	9.750	0.017	95	210005	5.00	5.00	
104 1,3-Dichloropropane	76	9.802	9.785	0.017	95	229422	5.00	4.84	
105 2-Hexanone	43	9.924	9.906	0.018	97	354651	20.0	20.9	
108 Chlorodibromomethane	129	10.150	10.133	0.017	90	237281	5.00	5.15	
109 Ethylene Dibromide	107	10.342	10.324	0.018	98	164765	5.00	5.07	
110 1-Chlorohexane	91	11.125	11.108	0.017	89	351923	5.00	4.96	
111 Chlorobenzene	112	11.160	11.143	0.018	89	464643	5.00	5.02	
112 1,1,1,2-Tetrachloroethane	131	11.282	11.282	0.000	92	227446	5.00	5.08	
113 Ethylbenzene	106	11.334	11.317	0.017	99	231971	5.00	4.91	
114 m-Xylene & p-Xylene	106	11.508	11.491	0.017	98	328239	5.00	5.11	
115 o-Xylene	106	12.083	12.065	0.018	99	278572	5.00	4.95	
116 Styrene	104	12.100	12.083	0.017	94	447196	5.00	4.91	
117 Bromoform	173	12.344	12.344	0.000	94	128788	5.00	5.18	
118 Isopropylbenzene	105	12.570	12.553	0.017	97	902253	5.00	4.83	
120 Cyclohexanone	55	12.692	12.675	0.017	98	114396	200.0	201.0	
122 Bromobenzene	156	12.953	12.936	0.017	94	209396	5.00	4.86	
121 1,1,2,2-Tetrachloroethane	83	12.953	12.936	0.017	95	186156	5.00	4.78	
123 1,2,3-Trichloropropane	110	13.005	12.988	0.017	79	43445	5.00	4.77	
124 trans-1,4-Dichloro-2-buten	53	13.023	13.005	0.018	68	47596	5.00	4.66	
125 N-Propylbenzene	120	13.092	13.075	0.017	99	219391	5.00	4.79	
126 2-Chlorotoluene	126	13.179	13.179	0.000	97	168212	5.00	4.74	
127 1,3,5-Trimethylbenzene	105	13.301	13.284	0.017	94	680535	5.00	4.81	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
128 4-Chlorotoluene	126	13.319	13.301	0.018	98	226109	5.00	4.93	
129 tert-Butylbenzene	119	13.684	13.667	0.017	95	729258	5.00	4.75	
130 1,2,4-Trimethylbenzene	105	13.736	13.719	0.017	96	634779	5.00	4.72	
131 sec-Butylbenzene	134	13.928	13.911	0.017	95	191704	5.00	4.73	
132 1,3-Dichlorobenzene	146	14.050	14.032	0.018	96	300035	5.00	4.58	
133 4-Isopropyltoluene	119	14.085	14.067	0.018	98	857683	5.00	4.92	
134 1,4-Dichlorobenzene	146	14.137	14.137	0.000	94	522846	5.00	5.17	
137 n-Butylbenzene	91	14.520	14.503	0.017	98	870770	5.00	4.76	
138 1,2-Dichlorobenzene	146	14.537	14.520	0.017	96	344254	5.00	5.01	
139 1,2-Dibromo-3-Chloropropan	157	15.321	15.303	0.018	82	32899	5.00	5.13	
144 1,2,3-Trichlorobenzene	180	16.087	16.069	0.018	93	239815	5.00	5.19	
142 Hexachlorobutadiene	225	16.243	16.226	0.017	97	239213	5.00	4.97	
143 Naphthalene	128	16.313	16.296	0.017	97	267634	5.00	5.09	
141 1,2,4-Trichlorobenzene	180	16.539	16.522	0.017	95	185955	5.00	5.11	
S 151 1,2-Dichloroethene, Total	96				0		10.0	9.63	
S 145 Trihalomethanes, Total	1				0		20.0	20.1	
S 146 Xylenes, Total (URS)	1				0		10.0	10.1	
S 148 1,3-Dichloropropene, Total	1				0		10.0	10.4	
S 149 1,2-Dichloroethene, Total	1				0		10.0	9.63	
S 150 Xylenes, Total	106				0		10.0	10.1	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MV-Main B_00009	Amount Added: 2.50	Units: uL	
MV-Gas/Ket B_00017	Amount Added: 2.50	Units: uL	
MV-SS 2-Cleve_00020	Amount Added: 2.50	Units: uL	
MV-568718-D_00002	Amount Added: 1.00	Units: uL	Run Reagent
MV-ARCH SS A_00042	Amount Added: 0.68	Units: uL	Run Reagent

Data File: \\Denchrom\ChromData\VMS_H\20150528-35487.b\H3001.D

Injection Date: 28-May-2015 20:25:30

Instrument ID: VMS_H

Operator ID: bergerb

Lims ID: LCS

Worklist Smp#: 4

Client ID:

Purge Vol: 20.000 mL

Dil. Factor: 1.0000

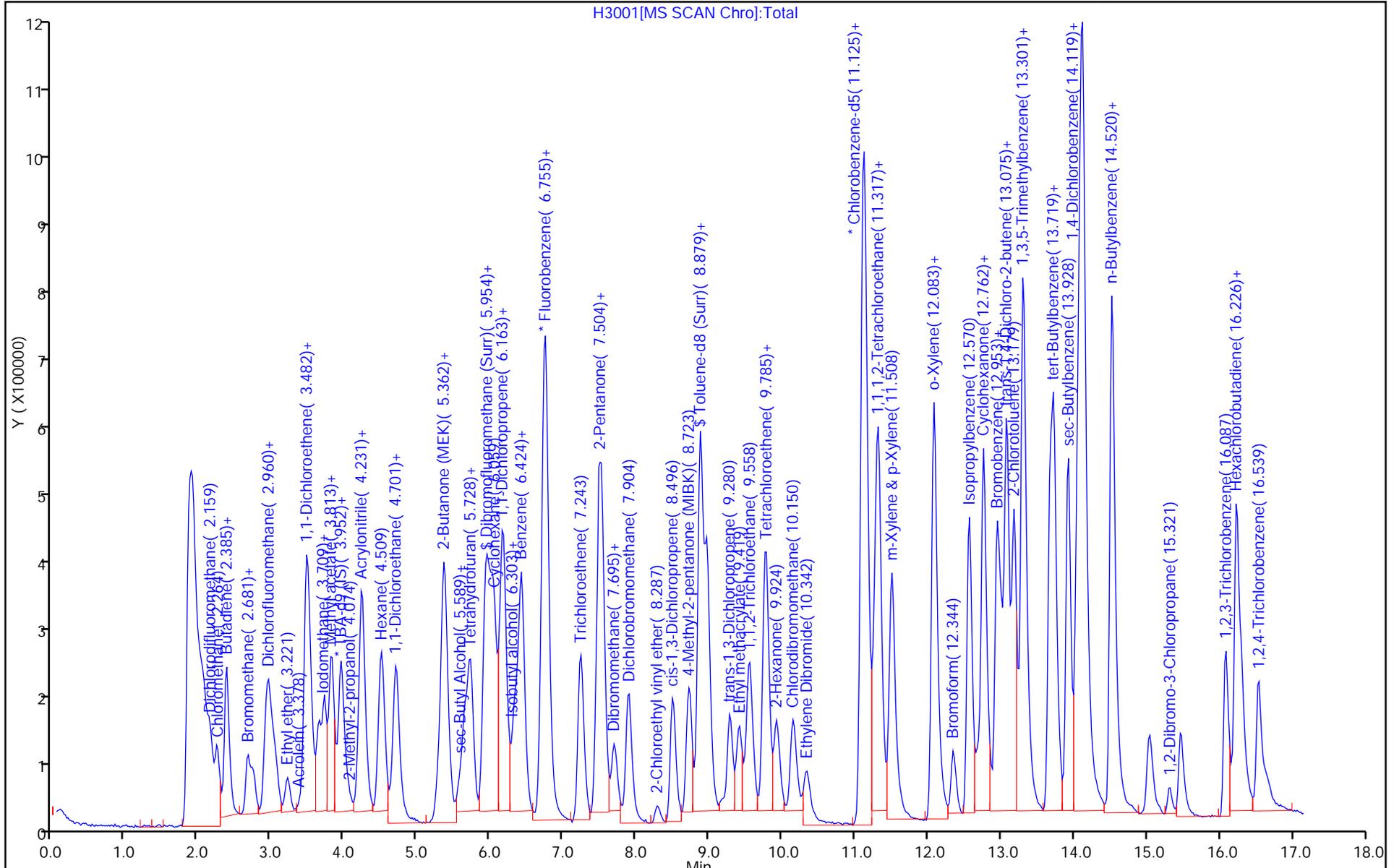
ALS Bottle#: 4

Method: AQ_VMSH_8260

Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (75.53) (0.53 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica DenverJob No.: 280-69589-1

SDG No.: _____

Instrument ID: VMS_HStart Date: 05/27/2015 23:12Analysis Batch Number: 279265End Date: 05/28/2015 05:32

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-279265/1		05/27/2015 23:12	1	H2946.D	DB-624 (75.53) 0.53 (mm)
IC 280-279265/9		05/28/2015 00:18	1	H2949.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 00:18	1		DB-624 (75.53) 0.53 (mm)
IC 280-279265/10		05/28/2015 00:40	1	H2950.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 00:40	1		DB-624 (75.53) 0.53 (mm)
IC 280-279265/11		05/28/2015 01:03	1	H2951.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 01:03	1		DB-624 (75.53) 0.53 (mm)
IC 280-279265/12		05/28/2015 01:25	1	H2952.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 01:25	1		DB-624 (75.53) 0.53 (mm)
IC 280-279265/13		05/28/2015 01:48	1	H2953.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 01:48	1		DB-624 (75.53) 0.53 (mm)
IC 280-279265/14		05/28/2015 02:10	1	H2954.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 02:10	1		DB-624 (75.53) 0.53 (mm)
IC 280-279265/15		05/28/2015 02:33	1	H2955.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 02:33	1		DB-624 (75.53) 0.53 (mm)
ICV 280-279265/22		05/28/2015 02:55	1		DB-624 (75.53) 0.53 (mm)
IC 280-279265/16		05/28/2015 03:18	1	H2957.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 03:18	1		DB-624 (75.53) 0.53 (mm)
IC 280-279265/17		05/28/2015 03:40	1	H2958.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 03:40	1		DB-624 (75.53) 0.53 (mm)
IC 280-279265/18		05/28/2015 04:03	1	H2959.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 04:03	1		DB-624 (75.53) 0.53 (mm)
ICIS 280-279265/19		05/28/2015 04:25	1	H2960.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 04:25	1		DB-624 (75.53) 0.53 (mm)
IC 280-279265/20		05/28/2015 04:48	1	H2961.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 04:48	1		DB-624 (75.53) 0.53 (mm)
IC 280-279265/21		05/28/2015 05:10	1	H2962.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 05:10	1		DB-624 (75.53) 0.53 (mm)
ICV 280-279265/23		05/28/2015 05:32	1	H2963.D	DB-624 (75.53) 0.53 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica DenverJob No.: 280-69589-1

SDG No.: _____

Instrument ID: VMS_HStart Date: 05/28/2015 18:54Analysis Batch Number: 279458End Date: 05/29/2015 06:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-279458/1		05/28/2015 18:54	1	H2997.D	DB-624 (75.53) 0.53 (mm)
CCV 280-279458/2		05/28/2015 19:17	1	H2998.D	DB-624 (75.53) 0.53 (mm)
CCV 280-279458/3		05/28/2015 19:39	1	H2999.D	DB-624 (75.53) 0.53 (mm)
LCS 280-279458/4		05/28/2015 20:25	1	H3001.D	DB-624 (75.53) 0.53 (mm)
MB 280-279458/6		05/28/2015 21:10	1	H3003.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 21:33	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 21:56	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 22:18	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 22:41	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 23:03	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 23:26	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/28/2015 23:49	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/29/2015 00:11	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/29/2015 00:34	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/29/2015 00:56	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/29/2015 01:19	1		DB-624 (75.53) 0.53 (mm)
280-69589-1	54403-TB18-0515	05/29/2015 01:41	1	H3015.D	DB-624 (75.53) 0.53 (mm)
280-69589-2	54400-MW54-0515	05/29/2015 02:04	1	H3016.D	DB-624 (75.53) 0.53 (mm)
280-69589-3	54401-MW54-0515	05/29/2015 02:26	1	H3017.D	DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/29/2015 02:49	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/29/2015 03:11	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/29/2015 03:33	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/29/2015 03:56	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/29/2015 04:18	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/29/2015 04:40	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/29/2015 05:03	1		DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/29/2015 05:25	2		DB-624 (75.53) 0.53 (mm)
ZZZZZ		05/29/2015 05:48	20		DB-624 (75.53) 0.53 (mm)
CCVC 280-279458/33		05/29/2015 06:10	1	H3027.D	DB-624 (75.53) 0.53 (mm)

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Denver Job Number: 280-69589-1

SDG No.: _____

Project: GSI - McConnell AFB (SWMU207 - Boeing)

Client Sample ID
54400-MW54-0515

Lab Sample ID
280-69589-2

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: 54400-MW54-0515

Lab Sample ID: 280-69589-2

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG ID.:

Matrix: Water

Date Sampled: 05/20/2015 16:20

Reporting Basis: WET

Date Received: 05/21/2015 07:10

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Calcium	90000	1000	140	35	ug/L			1	6010C
Iron	110	100	85	22	ug/L			1	6010C
Magnesium	9500	500	40	11	ug/L			1	6010C
Potassium	1300	3000	940	240	ug/L	J		1	6010C
Sodium	59000	5000	350	92	ug/L			1	6010C

1A-IN
 INORGANIC ANALYSIS DATA SHEET
 METALS - DISSOLVED

Client Sample ID: 54400-MW54-0515

Lab Sample ID: 280-69589-2

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG ID.:

Matrix: Water

Date Sampled: 05/20/2015 16:20

Reporting Basis: WET

Date Received: 05/21/2015 07:10

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Iron	85	100	85	22	ug/L	U		1	6010C

2A-IN
 CALIBRATION VERIFICATIONS
 METALS

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

ICV Source: ICP ICVH_00222 Concentration Units: ug/L

CCV Source: ICP CCVH_00395

Analyte	ICVH 280-279691/6 05/30/2015 11:45				CCVH 280-279691/34 05/30/2015 18:01				CCVH 280-279691/45 05/30/2015 18:29			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
<i>Iron</i>	76900		80000	96	48700		50000	97	48300		50000	97
<i>Sodium</i>	40500		40000	101	250000		250000	100	247000		250000	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
 Italicized analytes were not requested for this sequence.

2A-IN
 CALIBRATION VERIFICATIONS
 METALS

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

ICV Source: ICP ICV_00029 Concentration Units: ug/L

CCV Source: ICP CCV_00040

Analyte	ICV 280-279691/8 05/30/2015 12:03				ICV 280-279691/9 05/30/2015 12:05				CCV 280-279691/35 05/30/2015 18:04			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Magnesium	9930		10000	99	9930		10000	99	19500		20000	97
<i>Calcium</i>	1990		2000	100	1980		2000	99				
<i>Iron</i>	246		250	98	245		250	98				
<i>Potassium</i>	19500		20000	98	19400		20000	97				
<i>Sodium</i>	1960		2000	98	1970		2000	98				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
 Italicized analytes were not requested for this sequence.

2A-IN
 CALIBRATION VERIFICATIONS
 METALS

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

ICV Source: ICP ICV_00029 Concentration Units: ug/L

CCV Source: ICP CCV_00040

Analyte	CCV 280-279691/46 05/30/2015 18:32											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Magnesium	19900		20000	99								
<i>Calcium</i>	4840		5000	97								
<i>Iron</i>	2400		2500	96								
<i>Potassium</i>	48500		50000	97								
<i>Sodium</i>	5110		5000	102								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
 Italicized analytes were not requested for this sequence.

2A-IN
 CALIBRATION VERIFICATIONS
 METALS

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

ICV Source: ICP LLCCV_01472 Concentration Units: ug/L

CCV Source: ICP LLCCV_01472

Analyte	ICVL 280-279691/10 05/30/2015 12:11				CCVL 280-279691/37 05/30/2015 18:09				CCVL 280-279691/48 05/30/2015 18:36			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Magnesium	215		200	108	215		200	107	212		200	106
<i>Calcium</i>	206		200	103	199	J	200	100	208		200	104
<i>Iron</i>	101		100	101	94.4	J	100	94	98.5	J	100	99
<i>Potassium</i>	3040		3000	101	3010		3000	100	3040		3000	101
<i>Sodium</i>	1030		1000	103	1100		1000	110	1110		1000	111

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
 Italicized analytes were not requested for this sequence.

2A-IN
 CALIBRATION VERIFICATIONS
 METALS

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

ICV Source: ICP ICVH_00223 Concentration Units: ug/L

CCV Source: ICP CCVH_00395

Analyte	ICVH 280-279916/6 06/01/2015 10:54				CCVH 280-279916/42 06/01/2015 12:35				CCVH 280-279916/53 06/01/2015 13:08			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron	77200		80000	96	49200		50000	98	50200		50000	100
Sodium	39900		40000	100	249000		250000	99	252000		250000	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
 Italicized analytes were not requested for this sequence.

2A-IN
 CALIBRATION VERIFICATIONS
 METALS

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

ICV Source: ICP ICV_00029 Concentration Units: ug/L

CCV Source: ICP CCV_00040

Analyte	ICV 280-279916/7 06/01/2015 10:57				CCV 280-279916/43 06/01/2015 12:38				CCV 280-279916/54 06/01/2015 13:11			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	1980		2000	99	5150		5000	103	5170		5000	103
Iron	254		250	102	2540		2500	102	2540		2500	102
Potassium	19500		20000	97	50700		50000	101	51000		50000	102
Sodium	1960		2000	98	5040		5000	101	5120		5000	102
<i>Magnesium</i>	9990		10000	100	20500		20000	102	20400		20000	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
 Italicized analytes were not requested for this sequence.

2A-IN
 CALIBRATION VERIFICATIONS
 METALS

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

ICV Source: ICP LLCCV_01473 Concentration Units: ug/L

CCV Source: ICP LLCCV_01473

Analyte	ICVL 280-279916/8 06/01/2015 11:00				CCVL 280-279916/45 06/01/2015 12:47				CCVL 280-279916/56 06/01/2015 13:16			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	215		200	108	219		200	109	225		200	112
Iron	103		100	103	108		100	108	108		100	108
Potassium	3210		3000	107	3340		3000	111	3470		3000	116
Sodium	1010		1000	101	1020		1000	102	1090		1000	109
<i>Magnesium</i>	220		200	110	221		200	111	220		200	110

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
 Italicized analytes were not requested for this sequence.

2A-IN
 CALIBRATION VERIFICATIONS
 METALS

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

ICV Source: ICP ICVH_00223 Concentration Units: ug/L

CCV Source: ICP CCVH_00396

Analyte	ICVH 280-280670/6 06/05/2015 09:26				CCVH 280-280670/71 06/05/2015 13:22				CCVH 280-280670/83 06/05/2015 13:52			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron	78300		80000	98	47700		50000	95	47900		50000	96

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
 Italicized analytes were not requested for this sequence.

2A-IN
 CALIBRATION VERIFICATIONS
 METALS

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

ICV Source: ICP ICV_00031 Concentration Units: ug/L

CCV Source: ICP CCV_00042

Analyte	ICV 280-280670/7 06/05/2015 09:29				CCV 280-280670/72 06/05/2015 13:24				CCV 280-280670/84 06/05/2015 13:54			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron	263		250	105	2390		2500	96	2400		2500	96

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
 Italicized analytes were not requested for this sequence.

2A-IN
 CALIBRATION VERIFICATIONS
 METALS

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

ICV Source: ICP LLCCV_01477 Concentration Units: ug/L

CCV Source: ICP LLCCV_01477

Analyte	ICVL 280-280670/10 06/05/2015 09:40				CCVL 280-280670/74 06/05/2015 13:29				CCVL 280-280670/86 06/05/2015 13:59			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron	100		100	100	99.0	J	100	99	98.5	J	100	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
 Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Method: 6010C Instrument ID: MT_025

Lab Sample ID: CRI 280-279691/14 Concentration Units: ug/L

CRQL Check Standard Source: ICP CRI_00089

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	200	202		101	80-120
Iron	30.0	30.5	J	102	80-120
Magnesium	200	202		101	80-120
Potassium	1000	981	J	98	80-120
Sodium	1000	1010		101	80-120

Lab Sample ID: CRI 280-279916/12 Concentration Units: ug/L

CRQL Check Standard Source: ICP CRI_00090

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	200	218		109	80-120
Iron	30.0	32.8	J	109	80-120
Magnesium	200	203		102	80-120
Potassium	1000	1130	J	113	80-120
Sodium	1000	994	J	99	80-120

Lab Sample ID: CRI 280-280670/14 Concentration Units: ug/L

CRQL Check Standard Source: ICP CRI_00094

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Iron	30.0	30.4	J	101	80-120

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Concentration Units: ug/L

Analyte	RL	ICB 280-279691/13 05/30/2015 12:19		CCB 280-279691/36 05/30/2015 18:06		CCB 280-279691/47 05/30/2015 18:34		Found	C
		Found	C	Found	C	Found	C		
Magnesium	200	40	U	40	U	40	U		
<i>Calcium</i>	200	140	U	140	U	140	U		
<i>Iron</i>	100	85	U	85	U	85	U		
<i>Potassium</i>	3000	940	U	940	U	940	U		
<i>Sodium</i>	1000	350	U	350	U	350	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Concentration Units: ug/L

Analyte	RL	ICB 280-279916/11 06/01/2015 11:08		CCB 280-279916/44 06/01/2015 12:40		CCB 280-279916/55 06/01/2015 13:13		Found	C
		Found	C	Found	C	Found	C		
Calcium	200	140	U	140	U	140	U		
Iron	100	85	U	38.3	J	85	U		
Potassium	3000	940	U	940	U	940	U		
Sodium	1000	350	U	350	U	350	U		
<i>Magnesium</i>	200	40	U	40	U	40	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Concentration Units: ug/L

Analyte	RL	ICB 280-280670/13 06/05/2015 09:48		CCB 280-280670/73 06/05/2015 13:27		CCB 280-280670/85 06/05/2015 13:57		Found	C
		Found	C	Found	C	Found	C		
Iron	100	85	U	85	U	85	U		

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Denver Job No.: 280-69589-1
SDG No.: _____
Concentration Units: ug/L Lab Sample ID: MB 280-279404/1-A
Instrument Code: MT_025 Batch No.: 279691

CAS No.	Analyte	Concentration	C	Q	Method
7439-95-4	Magnesium	40	U		6010C_DOD5

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Denver Job No.: 280-69589-1
SDG No.: _____
Concentration Units: ug/L Lab Sample ID: MB 280-279404/1-A
Instrument Code: MT_025 Batch No.: 279916

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	140	U		6010C_DOD5
7439-89-6	Iron	85	U		6010C_DOD5
7440-09-7	Potassium	940	U		6010C_DOD5
7440-23-5	Sodium	350	U		6010C_DOD5

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Denver Job No.: 280-69589-1
SDG No.: _____
Concentration Units: ug/L Lab Sample ID: MB 280-280173/1-A
Instrument Code: MT_025 Batch No.: 280670

CAS No.	Analyte	Concentration	C	Q	Method
7439-89-6	Iron	71.1	J		6010C_DOD5

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Lab Sample ID: ICSA 280-279691/17 Instrument ID: MT_025
 Lab File ID: 26c053015.asc ICS Source: ICP ICSA_00104
 Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Magnesium	500000	504490	101
<i>Aluminum</i>	<i>500000</i>	<i>510560</i>	<i>102</i>
<i>Antimony</i>		<i>-9.03</i>	
<i>Arsenic</i>		<i>6.48</i>	
<i>Barium</i>		<i>0.160</i>	
<i>Beryllium</i>		<i>-0.250</i>	
<i>Boron</i>		<i>-7.40</i>	
<i>Cadmium</i>		<i>-0.630</i>	
<i>Calcium</i>	<i>500000</i>	<i>464900</i>	<i>93</i>
<i>Cobalt</i>		<i>-0.320</i>	
<i>Copper</i>		<i>-0.620</i>	
<i>Iron</i>	<i>200000</i>	<i>182660</i>	<i>91</i>
<i>Lead</i>		<i>5.65</i>	
<i>Lithium</i>		<i>2.54</i>	
<i>Molybdenum</i>		<i>-5.42</i>	
<i>Potassium</i>		<i>-157</i>	
<i>Selenium</i>		<i>6.36</i>	
<i>Silicon</i>		<i>4.01</i>	
<i>Silver</i>		<i>0.180</i>	
<i>SiO2</i>		<i>8.59</i>	
<i>Sodium</i>		<i>21.2</i>	
<i>Thallium</i>		<i>-10.2</i>	
<i>Tin</i>		<i>3.75</i>	
<i>Titanium</i>		<i>-0.280</i>	
<i>Vanadium</i>		<i>0.710</i>	
<i>Zinc</i>		<i>2.49</i>	

Calculations are performed before rounding to avoid round-off errors in calculated results.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG No.: _____

Lab Sample ID: ICSAB 280-279691/18

Instrument ID: MT_025

Lab File ID: 26c053015.asc

ICS Source: ICP ICSAB_00109

Concentration Units: ug/L

Analyte	True	Found	Percent Recovery
	Solution AB	Solution AB	
Magnesium	500000	498830	100
<i>Aluminum</i>	<i>500000</i>	<i>503030</i>	<i>101</i>
<i>Antimony</i>	<i>1000</i>	<i>968</i>	<i>97</i>
<i>Arsenic</i>	<i>2000</i>	<i>1940</i>	<i>97</i>
<i>Barium</i>	<i>500</i>	<i>492</i>	<i>98</i>
<i>Beryllium</i>	<i>500</i>	<i>470</i>	<i>94</i>
<i>Boron</i>	<i>2000</i>	<i>1933</i>	<i>97</i>
<i>Cadmium</i>	<i>1000</i>	<i>1015</i>	<i>101</i>
<i>Calcium</i>	<i>500000</i>	<i>461640</i>	<i>92</i>
<i>Chromium</i>	<i>500</i>	<i>444</i>	<i>89</i>
<i>Cobalt</i>	<i>500</i>	<i>459</i>	<i>92</i>
<i>Copper</i>	<i>500</i>	<i>512</i>	<i>102</i>
<i>Iron</i>	<i>200000</i>	<i>180260</i>	<i>90</i>
<i>Lead</i>	<i>1000</i>	<i>925</i>	<i>92</i>
<i>Lithium</i>	<i>1000</i>	<i>989</i>	<i>99</i>
<i>Manganese</i>	<i>500</i>	<i>481</i>	<i>96</i>
<i>Molybdenum</i>	<i>1000</i>	<i>920</i>	<i>92</i>
<i>Nickel</i>	<i>1000</i>	<i>913</i>	<i>91</i>
<i>Potassium</i>	<i>50000</i>	<i>49811</i>	<i>100</i>
<i>Selenium</i>	<i>5000</i>	<i>4816</i>	<i>96</i>
<i>Silicon</i>	<i>10000</i>	<i>10253</i>	<i>103</i>
<i>Silver</i>	<i>1000</i>	<i>1047</i>	<i>105</i>
<i>SiO2</i>	<i>21400</i>	<i>21940</i>	<i>103</i>
<i>Sodium</i>	<i>50000</i>	<i>50170</i>	<i>100</i>
<i>Strontium</i>	<i>1000</i>	<i>945</i>	<i>95</i>
<i>Thallium</i>	<i>10000</i>	<i>8459</i>	<i>85</i>
<i>Tin</i>	<i>10000</i>	<i>8913</i>	<i>89</i>
<i>Titanium</i>	<i>1000</i>	<i>948</i>	<i>95</i>
<i>Vanadium</i>	<i>500</i>	<i>497</i>	<i>99</i>
<i>Zinc</i>	<i>1000</i>	<i>917</i>	<i>92</i>

Calculations are performed before rounding to avoid round-off errors in calculated results.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG No.: _____

Lab Sample ID: ICSA 280-279916/13

Instrument ID: MT_025

Lab File ID: 25A060115.asc

ICS Source: ICP ICSA_00104

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	500000	471280	94
Iron	200000	181760	91
Potassium		104	
Sodium		33.5	
<i>Aluminum</i>	<i>500000</i>	<i>518220</i>	<i>104</i>
<i>Antimony</i>		<i>-11.3</i>	
<i>Arsenic</i>		<i>0.710</i>	
<i>Barium</i>		<i>0.270</i>	
<i>Beryllium</i>		<i>-0.0700</i>	
<i>Boron</i>		<i>-7.75</i>	
<i>Cadmium</i>		<i>-0.700</i>	
<i>Cobalt</i>		<i>0.440</i>	
<i>Copper</i>		<i>1.56</i>	
<i>Lead</i>		<i>7.58</i>	
<i>Lithium</i>		<i>6.29</i>	
<i>Magnesium</i>	<i>500000</i>	<i>510420</i>	<i>102</i>
<i>Molybdenum</i>		<i>-5.79</i>	
<i>Selenium</i>		<i>2.55</i>	
<i>Silicon</i>		<i>11.6</i>	
<i>Silver</i>		<i>-0.0800</i>	
<i>SiO2</i>		<i>24.9</i>	
<i>Thallium</i>		<i>-7.52</i>	
<i>Tin</i>		<i>0.360</i>	
<i>Titanium</i>		<i>-1.18</i>	
<i>Vanadium</i>		<i>2.29</i>	
<i>Zinc</i>		<i>1.35</i>	

Calculations are performed before rounding to avoid round-off errors in calculated results.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG No.: _____

Lab Sample ID: ICSAB 280-279916/14

Instrument ID: MT_025

Lab File ID: 25A060115.asc

ICS Source: ICP ICSAB_00109

Concentration Units: ug/L

Analyte	True	Found	Percent Recovery
	Solution AB	Solution AB	
Calcium	500000	461740	92
Iron	200000	179450	90
Potassium	50000	50999	102
Sodium	50000	49584	99
<i>Aluminum</i>	<i>500000</i>	<i>511580</i>	<i>102</i>
<i>Antimony</i>	<i>1000</i>	<i>943</i>	<i>94</i>
<i>Arsenic</i>	<i>2000</i>	<i>1923</i>	<i>96</i>
<i>Barium</i>	<i>500</i>	<i>495</i>	<i>99</i>
<i>Beryllium</i>	<i>500</i>	<i>475</i>	<i>95</i>
<i>Boron</i>	<i>2000</i>	<i>1888</i>	<i>94</i>
<i>Cadmium</i>	<i>1000</i>	<i>1009</i>	<i>101</i>
<i>Chromium</i>	<i>500</i>	<i>421</i>	<i>84</i>
<i>Cobalt</i>	<i>500</i>	<i>455</i>	<i>91</i>
<i>Copper</i>	<i>500</i>	<i>511</i>	<i>102</i>
<i>Lead</i>	<i>1000</i>	<i>906</i>	<i>91</i>
<i>Lithium</i>	<i>1000</i>	<i>1011</i>	<i>101</i>
<i>Magnesium</i>	<i>500000</i>	<i>500390</i>	<i>100</i>
<i>Manganese</i>	<i>500</i>	<i>486</i>	<i>97</i>
<i>Molybdenum</i>	<i>1000</i>	<i>907</i>	<i>91</i>
<i>Nickel</i>	<i>1000</i>	<i>923</i>	<i>92</i>
<i>Selenium</i>	<i>5000</i>	<i>4651</i>	<i>93</i>
<i>Silicon</i>	<i>10000</i>	<i>10579</i>	<i>106</i>
<i>Silver</i>	<i>1000</i>	<i>1058</i>	<i>106</i>
<i>SiO2</i>	<i>21400</i>	<i>22638</i>	<i>106</i>
<i>Strontium</i>	<i>1000</i>	<i>952</i>	<i>95</i>
<i>Thallium</i>	<i>10000</i>	<i>8262</i>	<i>83</i>
<i>Tin</i>	<i>10000</i>	<i>8746</i>	<i>87</i>
<i>Titanium</i>	<i>1000</i>	<i>954</i>	<i>95</i>
<i>Vanadium</i>	<i>500</i>	<i>502</i>	<i>100</i>
<i>Zinc</i>	<i>1000</i>	<i>939</i>	<i>94</i>

Calculations are performed before rounding to avoid round-off errors in calculated results.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG No.: _____

Lab Sample ID: ICSA 280-280670/16

Instrument ID: MT_025

Lab File ID: 25a060515a.asc

ICS Source: ICP ICSA_00105

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Iron	200000	181870	91
<i>Aluminum</i>	<i>500000</i>	<i>517100</i>	<i>103</i>
<i>Antimony</i>		<i>-1.56</i>	
<i>Arsenic</i>		<i>10.5</i>	
<i>Barium</i>		<i>-0.0800</i>	
<i>Beryllium</i>		<i>-0.160</i>	
<i>Boron</i>		<i>-9.88</i>	
<i>Cadmium</i>		<i>-0.710</i>	
<i>Calcium</i>	<i>500000</i>	<i>471310</i>	<i>94</i>
<i>Cobalt</i>		<i>-0.180</i>	
<i>Copper</i>		<i>0.580</i>	
<i>Lead</i>		<i>6.85</i>	
<i>Lithium</i>		<i>4.37</i>	
<i>Magnesium</i>	<i>500000</i>	<i>515570</i>	<i>103</i>
<i>Molybdenum</i>		<i>-5.83</i>	
<i>Nickel</i>		<i>0.810</i>	
<i>Potassium</i>		<i>38.7</i>	
<i>Selenium</i>		<i>16.3</i>	
<i>Silicon</i>		<i>9.07</i>	
<i>Silver</i>		<i>0.520</i>	
<i>SiO2</i>		<i>19.4</i>	
<i>Sodium</i>		<i>29.2</i>	
<i>Thallium</i>		<i>-6.16</i>	
<i>Tin</i>		<i>0.490</i>	
<i>Titanium</i>		<i>0.0200</i>	
<i>Vanadium</i>		<i>1.86</i>	
<i>Zinc</i>		<i>4.24</i>	

Calculations are performed before rounding to avoid round-off errors in calculated results.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG No.: _____

Lab Sample ID: ICSAB 280-280670/17

Instrument ID: MT_025

Lab File ID: 25a060515a.asc

ICS Source: ICP ICSAB_00109

Concentration Units: ug/L

Analyte	True	Found	Percent Recovery
	Solution AB	Solution AB	
Iron	200000	178650	89
<i>Aluminum</i>	<i>500000</i>	<i>507730</i>	<i>102</i>
<i>Antimony</i>	<i>1000</i>	<i>948</i>	<i>95</i>
<i>Arsenic</i>	<i>2000</i>	<i>1923</i>	<i>96</i>
<i>Barium</i>	<i>500</i>	<i>501</i>	<i>100</i>
<i>Beryllium</i>	<i>500</i>	<i>476</i>	<i>95</i>
<i>Boron</i>	<i>2000</i>	<i>1863</i>	<i>93</i>
<i>Cadmium</i>	<i>1000</i>	<i>1004</i>	<i>100</i>
<i>Calcium</i>	<i>500000</i>	<i>462970</i>	<i>93</i>
<i>Chromium</i>	<i>500</i>	<i>434</i>	<i>87</i>
<i>Cobalt</i>	<i>500</i>	<i>454</i>	<i>91</i>
<i>Copper</i>	<i>500</i>	<i>506</i>	<i>101</i>
<i>Lead</i>	<i>1000</i>	<i>909</i>	<i>91</i>
<i>Lithium</i>	<i>1000</i>	<i>1010</i>	<i>101</i>
<i>Magnesium</i>	<i>500000</i>	<i>497030</i>	<i>99</i>
<i>Manganese</i>	<i>500</i>	<i>485</i>	<i>97</i>
<i>Molybdenum</i>	<i>1000</i>	<i>902</i>	<i>90</i>
<i>Nickel</i>	<i>1000</i>	<i>909</i>	<i>91</i>
<i>Potassium</i>	<i>50000</i>	<i>51088</i>	<i>102</i>
<i>Selenium</i>	<i>5000</i>	<i>4648</i>	<i>93</i>
<i>Silicon</i>	<i>10000</i>	<i>10405</i>	<i>104</i>
<i>Silver</i>	<i>1000</i>	<i>1057</i>	<i>106</i>
<i>SiO2</i>	<i>21400</i>	<i>22267</i>	<i>104</i>
<i>Sodium</i>	<i>50000</i>	<i>50896</i>	<i>102</i>
<i>Strontium</i>	<i>1000</i>	<i>958</i>	<i>96</i>
<i>Thallium</i>	<i>10000</i>	<i>8189</i>	<i>82</i>
<i>Tin</i>	<i>10000</i>	<i>8585</i>	<i>86</i>
<i>Titanium</i>	<i>1000</i>	<i>946</i>	<i>95</i>
<i>Vanadium</i>	<i>500</i>	<i>499</i>	<i>100</i>
<i>Zinc</i>	<i>1000</i>	<i>932</i>	<i>93</i>

Calculations are performed before rounding to avoid round-off errors in calculated results.

5A-IN
 MATRIX SPIKE SAMPLE RECOVERY
 METALS

Client ID: 54400-MW54-0515 MS Lab ID: 280-69589-2 MS
 Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Matrix: Water Concentration Units: ug/L
 % Solids: _____

Analyte	SSR C	Sample Result (SR) C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Calcium	140000	90000	50000	101	87-113		6010C
Iron	1180	110	1000	107	87-115		6010C
Magnesium	57900	9500	50000	97	85-113		6010C
Potassium	54300	1300	J 50000	106	86-114		6010C
Sodium	113000	59000	50000	107	87-115		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

5A-IN
 MATRIX SPIKE SAMPLE RECOVERY
 METALS - DISSOLVED

Client ID: 54400-MW54-0515 MS Lab ID: 280-69589-2 MS
 Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Matrix: Water Concentration Units: ug/L
 % Solids: _____

Analyte	SSR C	Sample Result (SR) C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Iron	969	85 U	1000	97	87-115		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

5A-IN
 MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
 METALS

Client ID: 54400-MW54-0515 MSD

Lab ID: 280-69589-2 MSD

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG No.: _____

Matrix: Water

Concentration Units: ug/L

% Solids: _____

Analyte	(SDR) C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Calcium	136000	50000	91	87-113	4	20		6010C
Iron	1090	1000	98	87-115	8	20		6010C
Magnesium	56300	50000	94	85-113	3	20		6010C
Potassium	51900	50000	101	86-114	4	20		6010C
Sodium	108000	50000	96	87-115	5	20		6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

5A-IN
 MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
 METALS - DISSOLVED

Client ID: 54400-MW54-0515 MSD Lab ID: 280-69589-2 MSD
 Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Matrix: Water Concentration Units: ug/L
 % Solids: _____

Analyte	(SDR) C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Iron	959	1000	96	87-115	1	20		6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

5B-IN
 POST DIGESTION SPIKE SAMPLE RECOVERY
 METALS

Client ID: 54400-MW54-0515 PDS

Lab ID: 280-69589-2 PDS

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG No.: _____

Matrix: Water

Concentration Units: ug/L

Analyte	SSR C	Sample Result (SR) C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Calcium	108000	90000	20000	89	80-120		6010C
Iron	1090	110	1000	98	80-120		6010C
Magnesium	27700	9500	20000	91	80-120		6010C
Potassium	21400	1300 J	20000	101	80-120		6010C
Sodium	80400	59000	20000	105	80-120		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

5B-IN
 POST DIGESTION SPIKE SAMPLE RECOVERY
 METALS - DISSOLVED

Client ID: 54400-MW54-0515 PDS

Lab ID: 280-69589-2 PDS

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG No.: _____

Matrix: Water

Concentration Units: ug/L

Analyte	SSR C	Sample Result (SR) C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Iron	942	85 U	1000	94	80-120		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 280-279404/2-A

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

Sample Matrix: Water

LCS Source: ICP SPK 3A_00097

Analyte	Water (ug/L)							
	True	Found	C	%R	Limits		Q	Method
Magnesium	50000	48700		97	85	113		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 280-279404/2-A

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

Sample Matrix: Water

LCS Source: ICP SPK 3A_00097

Analyte	Water (ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	50200		100	87	113		6010C
Iron	1000	1000		100	87	115		6010C
Potassium	50000	51400		103	86	114		6010C
Sodium	50000	51900		104	87	115		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
 LAB CONTROL SAMPLE
 METALS - TOTAL RECOVERABLE

Lab ID: LCS 280-280173/2-A

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

Sample Matrix: Water

LCS Source: ICP SPK 3A_00097

Analyte	Water (ug/L)							
	True	Found	C	%R	Limits		Q	Method
Iron	1000	955		95	87	115		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 280-69589-2

SDG No: _____

Lab Name: TestAmerica Denver

Job No: 280-69589-1

Matrix: Water

Concentration Units: ug/L

Analyte	Initial Sample Result (I) C	Serial Dilution Result (S) C	% Difference	Q	Method
Calcium	90000	101000	12	V D	6010C
Iron	110	163 J	NC	D	6010C
Magnesium	9500	10100	NC	D	6010C
Potassium	1300 J	2140 J	NC	D	6010C
Sodium	59000	65900	NC	D	6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
 ICP-AES AND ICP-MS SERIAL DILUTIONS
 METALS - DISSOLVED

Lab ID: 280-69589-2

SDG No: _____

Lab Name: TestAmerica Denver

Job No: 280-69589-1

Matrix: Water

Concentration Units: ug/L

Analyte	Initial Sample		Serial		% Difference	Q	Method
	Result (I)	C	Result (S)	C			
Iron	85	U	430	U	NC		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Denver

Job Number: 280-69589-1

SDG Number: _____

Matrix: Water

Instrument ID: MT_025

Method: 6010C

DL Date: 02/16/2014 00:00

Prep Method: 3010A

Analyte	Wavelength/ Mass	LOQ (ug/L)	DL (ug/L)
Calcium	317.9	1000	34.5
Iron	259.9	100	22
Magnesium	279	500	10.7
Potassium	766.4	3000	237
Sodium	589.5	5000	91.6

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Denver

Job Number: 280-69589-1

SDG Number: _____

Matrix: Water

Instrument ID: MT_025

Method: 6010C

XMDL Date: 03/13/2014 10:04

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium		200	34.5
Iron		100	22
Magnesium		200	10.7
Potassium		3000	237
Sodium		1000	91.6

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Denver Job Number: 280-69589-1
SDG Number: _____
Matrix: Water Instrument ID: MT_025
Method: 6010C DL Date: 02/16/2014 00:00
Prep Method: 3005A

Analyte	Wavelength/ Mass	LOQ (ug/L)	DL (ug/L)
Iron	259.9	100	22

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Denver

Job Number: 280-69589-1

SDG Number: _____

Matrix: Water

Instrument ID: MT_025

Method: 6010C

XMDL Date: 03/13/2014 10:04

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Iron		100	22

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Denver

Job Number: 280-69589-1

SDG No.: _____

ICP-AES Instrument ID: MT_025

Date: 12/12/2014

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Aluminum	167.079													0.001460	
Aluminum	309.271														
Antimony	206.833		-0.000024						-0.000023			0.008162		-0.000047	
Arsenic	189.042		-0.000043									-0.006918		-0.000020	
Barium	455.403														
Beryllium	313.042														
Bismuth	223.061		-0.000012			-0.001206			-0.000016			0.001346		0.000178	
Boron	208.959														
Cadmium	228.802			0.013281		-0.000082					0.000036			-0.000013	
Calcium	317.933										0.000391				
Chromium	205.552						-0.001150							0.000010	
Cobalt	228.616					0.000052						0.000001			
Copper	324.754													0.000010	
Iron	259.940										0.070287				
Iron	271.441										0.076500				
Lead	220.353		-0.000100					-0.000040	0.000004		-0.000553		0.000657	0.000002	
Lithium	670.784								0.000013						
Magnesium	279.079													0.000240	
Manganese	257.610		0.000001											0.000009	
Molybdenum	202.030														
Nickel	231.604						-0.000094		-0.000002		0.000105			0.000005	
Phosphorus	178.284		0.000002												
Potassium	766.490														
Selenium	196.090		-0.000007						-0.000007					-0.000013	
Silicon	288.158											-0.012859			
Silver	328.068														
Sodium	589.592														
Sodium	818.326														
Strontium	407.771								0.000049						
Sulfur	182.034		-0.000003						-0.000025						

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Denver Job Number: 280-69589-1

SDG No.: _____

ICP-AES Instrument ID: MT_025 Date: 12/12/2014

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K
Thallium	190.856		0.000004								0.001360	0.000274		-0.000039	
Thorium	283.730									-0.000514		-0.000153		0.000635	
Tin	189.989														
Titanium	334.904								0.000005			0.000255			
Uranium	370.152				0.002411				-0.000039			-0.001869		-0.000245	
Vanadium	292.402											-0.002416		0.000009	
Zinc	206.200		0.000002					-0.000075				-0.000468		0.000007	
Zirconium	339.198													-0.000018	

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Denver Job Number: 280-69589-1

SDG No.: _____

ICP-AES Instrument ID: MT_025 Date: 12/12/2014

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	Pb	S	Sb	Se	Si	SiO2	Sn	Sr
Aluminum	309.271		0.001655												
Aluminum	167.079														
Antimony	206.833				-0.021002		-0.000024					0.000031		0.000093	
Arsenic	189.042		-0.000003		-0.000744										
Barium	455.403														
Beryllium	313.042														
Bismuth	223.061													-0.001095	
Boron	208.959				0.034200										
Cadmium	228.802														
Calcium	317.933														
Chromium	205.552				0.000377		0.000035								
Cobalt	228.616			-0.000001	-0.000914		0.000125								
Copper	324.754				0.000377										
Iron	259.940		-0.000894												
Iron	271.441		-0.000894												
Lead	220.353				-0.001334		0.000027					0.000353			
Lithium	670.784		0.000001												
Magnesium	279.079			-0.002066											
Manganese	257.610														
Molybdenum	202.030														
Nickel	231.604				0.000080										
Phosphorus	178.284				-0.004340										
Potassium	766.490														
Selenium	196.090			0.000474											
Silicon	288.158				-0.000415										
Silver	328.068			0.000114	-0.000424										
Sodium	818.326														
Sodium	589.592														
Strontium	407.771														
Sulfur	182.034			-0.000231	-0.009013										

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Denver Job Number: 280-69589-1

SDG No.: _____

ICP-AES Instrument ID: MT_025 Date: 12/12/2014

Analyte	Wave Length	Li	Mg	Mn	Mo	Na	Ni	Pb	S	Sb	Se	Si	SiO2	Sn	Sr
Thallium	190.856			0.000104											
Thorium	283.730		-0.000008		0.000266		0.000116								
Tin	189.989														
Titanium	334.904		0.000001		0.000700										
Uranium	370.152														
Vanadium	292.402		-0.000020	-0.000132	-0.002250										
Zinc	206.200				0.000123										
Zirconium	339.198				0.000270										

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Denver Job Number: 280-69589-1

SDG No.: _____

ICP-AES Instrument ID: MT_025 Date: 12/12/2014

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Aluminum	167.079														
Aluminum	309.271														
Antimony	206.833		0.000329		-0.002400	0.000070		-0.000720							
Arsenic	189.042	-0.000781													
Barium	455.403							0.000705							
Beryllium	313.042		-0.000468			0.000770									
Bismuth	223.061		-		-0.005130										
Boron	208.959														
Cadmium	228.802				-0.000172										
Calcium	317.933	-0.006047													
Chromium	205.552	0.002490	-0.000200		-0.000210	0.000270		-0.000710							
Cobalt	228.616		0.002060		0.000180										
Copper	324.754	0.0038	-0.000200		-0.000990	-0.000414		-0.006744							
Iron	259.940					-0.209500									
Iron	271.441					-0.209000	-0.033000	-0.033							
Lead	220.353		-0.000027		0.000725			-0.000255							
Lithium	670.784														
Magnesium	279.079	-0.016400	-0.001812		-0.002700										
Manganese	257.610	-0.000636			0.000099										
Molybdenum	202.030				-0.000094										
Nickel	231.604														
Phosphorus	178.284				0.000030										
Potassium	766.490														
Selenium	196.090	-0.0000432		-0.000481	-0.000758										
Silicon	288.158														
Silver	328.068	0.001040			0.001028			0.009298							
Sodium	589.592														
Sodium	818.326														
Strontium	407.771														
Sulfur	182.034	0.000409				0.000164									

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Denver Job Number: 280-69589-1

SDG No.: _____

ICP-AES Instrument ID: MT_025 Date: 12/12/2014

Analyte	Wave Length	Th	Ti	Tl	U	V	Zn	Zr							
Thallium	190.856	-0.000005	-0.001115		0.000038	0.000980									
Thorium	283.730				0.023			0.0204							
Tin	189.989	-0.000123	-0.001890		0.000171										
Titanium	334.904	0.007800			-0.000731										
Uranium	370.152		0.007353												
Vanadium	292.402	0.001370	0.000262		-0.001180										
Zinc	206.200		0.000066												
Zirconium	339.198	0.053100			-0.000206										

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Denver

Job No: 280-69589-1

SDG No.: _____

Instrument ID: MT_025

Date: 03/30/2015 12:02

Analyte	Integ. Time (Sec.)	Concentration (mg/L)	Method
Calcium		1000	6010C
Iron		2000	6010C
Magnesium		1500	6010C
Potassium		500	6010C
Sodium		10000	6010C

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG No.: _____

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 280-279404/1-A	05/29/2015 14:45	279404		50	50
LCS 280-279404/2-A	05/29/2015 14:45	279404		50	50
280-69589-2	05/29/2015 14:45	279404		50	50
280-69589-2 MS	05/29/2015 14:45	279404		50	50
280-69589-2 MSD	05/29/2015 14:45	279404		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 280-280173/1-A	06/04/2015 09:00	280173		50	50
LCS 280-280173/2-A	06/04/2015 09:00	280173		50	50
280-69589-2	06/04/2015 09:00	280173		50	50
280-69589-2 MS	06/04/2015 09:00	280173		50	50
280-69589-2 MSD	06/04/2015 09:00	280173		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Instrument ID: MT_025 Method: 6010C

Start Date: 05/30/2015 11:31 End Date: 05/30/2015 19:35

Lab Sample ID	D / F	Type	Time	Analytes															
				Mg															
ICIS 280-279691/1	1		11:31	X															
IC 280-279691/2			11:34	X															
IC 280-279691/3			11:36	X															
ZZZZZZ			11:39																
ZZZZZZ			11:41																
ICVH 280-279691/6	1		11:45	X															
ZZZZZZ			11:49																
ICV 280-279691/8	1		12:03	X															
ICV 280-279691/9	1		12:05	X															
ICVL 280-279691/10	1		12:11	X															
CCVH 280-279691/11			12:14																
CCV 280-279691/12			12:16																
ICB 280-279691/13	1		12:19	X															
CRI 280-279691/14	1		12:22	X															
CRI 280-279691/15			12:31																
ZZZZZZ			12:38																
ICSA 280-279691/17	1		12:43	X															
ICSAB 280-279691/18	1		12:49	X															
LRA 280-279691/19			12:52																
CCVH 280-279691/20			12:55																
CCV 280-279691/21			12:58																
CCB 280-279691/22			13:00																
CCVL 280-279691/23			13:02																
CCVH 280-279691/24			17:37																
CCV 280-279691/25			17:39																
CCB 280-279691/26			17:42																
CCVL 280-279691/27			17:44																
ZZZZZZ			17:47																
ZZZZZZ			17:49																
ZZZZZZ			17:52																
ZZZZZZ			17:54																
ZZZZZZ			17:56																
ZZZZZZ			17:59																
CCVH 280-279691/34	1		18:01	X															
CCV 280-279691/35	1		18:04	X															
CCB 280-279691/36	1		18:06	X															
CCVL 280-279691/37	1		18:09	X															
MB 280-279404/1-A	1	T	18:12	X															
LCS 280-279404/2-A	1	T	18:14	X															
280-69589-2	1	T	18:16	X															
280-69589-2 SD	5	T	18:19	X															
280-69589-2 MS	1	T	18:22	X															

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Instrument ID: MT_025 Method: 6010C

Start Date: 05/30/2015 11:31 End Date: 05/30/2015 19:35

Lab Sample ID	D / F	T y p e	Time	Analytes															
				M g															
280-69589-2 MSD	1	T	18:24	X															
280-69589-2 PDS	1	T	18:26	X															
CCVH 280-279691/45	1		18:29	X															
CCV 280-279691/46	1		18:32	X															
CCB 280-279691/47	1		18:34	X															
CCVL 280-279691/48	1		18:36	X															
ZZZZZZ			18:39																
ZZZZZZ			18:42																
ZZZZZZ			18:44																
ZZZZZZ			18:47																
ZZZZZZ			18:50																
ZZZZZZ			18:52																
ZZZZZZ			18:55																
CCVH 280-279691/56			18:58																
CCV 280-279691/57			19:00																
CCB 280-279691/58			19:03																
CCVL 280-279691/59			19:05																
ZZZZZZ			19:08																
ZZZZZZ			19:10																
ZZZZZZ			19:13																
ZZZZZZ			19:15																
ZZZZZZ			19:18																
ZZZZZZ			19:20																
ZZZZZZ			19:23																
ZZZZZZ			19:25																
CCVH 280-279691/68			19:28																
CCV 280-279691/69			19:30																
CCB 280-279691/70			19:33																
ZZZZZZ			19:35																

Prep Types
T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Instrument ID: MT_025 Method: 6010C

Start Date: 06/01/2015 10:41 End Date: 06/01/2015 13:45

Lab Sample ID	D / F	Type	Time	Analytes															
				C a	F e	K	N a												
ICIS 280-279916/1	1		10:41	X	X	X	X												
IC 280-279916/2			10:44	X	X	X	X												
IC 280-279916/3			10:46	X	X	X	X												
ZZZZZZ			10:49																
ZZZZZZ			10:51																
ICVH 280-279916/6	1		10:54	X	X	X	X												
ICV 280-279916/7	1		10:57	X	X	X	X												
ICVL 280-279916/8	1		11:00	X	X	X	X												
CCVH 280-279916/9			11:03																
CCV 280-279916/10			11:06																
ICB 280-279916/11	1		11:08	X	X	X	X												
CRI 280-279916/12	1		11:11	X	X	X	X												
ICSA 280-279916/13	1		11:14	X	X	X	X												
ICSAB 280-279916/14	1		11:19	X	X	X	X												
LRA 280-279916/15			11:21																
CCVH 280-279916/16			11:24																
CCV 280-279916/17			11:27																
CCB 280-279916/18			11:29																
CCVL 280-279916/19			11:32																
ZZZZZZ			11:36																
ZZZZZZ			11:39																
ZZZZZZ			11:42																
ZZZZZZ			11:44																
ZZZZZZ			11:47																
ZZZZZZ			11:50																
ZZZZZZ			11:52																
ZZZZZZ			11:55																
ZZZZZZ			11:58																
ZZZZZZ			12:01																
CCVH 280-279916/30			12:03																
CCV 280-279916/31			12:06																
CCB 280-279916/32			12:08																
CCVL 280-279916/33			12:11																
ZZZZZZ			12:14																
ZZZZZZ			12:17																
ZZZZZZ			12:19																
ZZZZZZ			12:22																
ZZZZZZ			12:25																
ZZZZZZ			12:27																
ZZZZZZ			12:30																
ZZZZZZ			12:33																
CCVH 280-279916/42	1		12:35	X	X	X	X												

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Instrument ID: MT_025 Method: 6010C

Start Date: 06/01/2015 10:41 End Date: 06/01/2015 13:45

Lab Sample ID	D / F	T y p e	Time	Analytes															
				C a	F e	K	N a												
CCV 280-279916/43	1		12:38	X	X	X	X												
CCB 280-279916/44	1		12:40	X	X	X	X												
CCVL 280-279916/45	1		12:47	X	X	X	X												
MB 280-279404/1-A	1	T	12:51	X	X	X	X												
LCS 280-279404/2-A	1	T	12:53	X	X	X	X												
280-69589-2	1	T	12:55	X	X	X	X												
280-69589-2 SD	5	T	12:58	X	X	X	X												
280-69589-2 MS	1	T	13:01	X	X	X	X												
280-69589-2 MSD	1	T	13:03	X	X	X	X												
280-69589-2 PDS	1	T	13:06	X	X	X	X												
CCVH 280-279916/53	1		13:08	X	X	X	X												
CCV 280-279916/54	1		13:11	X	X	X	X												
CCB 280-279916/55	1		13:13	X	X	X	X												
CCVL 280-279916/56	1		13:16	X	X	X	X												
ZZZZZZ			13:23																
ZZZZZZ			13:25																
ZZZZZZ			13:27																
ZZZZZZ			13:30																
ZZZZZZ			13:32																
ZZZZZZ			13:35																
CCVH 280-279916/63			13:37																
CCV 280-279916/64			13:40																
CCB 280-279916/65			13:42																
CCVL 280-279916/66			13:45																

Prep Types
T = Total/NA

13-IN
 ANALYSIS RUN LOG
 METALS

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Instrument ID: MT_025 Method: 6010C

Start Date: 06/05/2015 09:13 End Date: 06/05/2015 14:32

Lab Sample ID	D / F	Type	Time	Analytes															
				Fe															
ICIS 280-280670/1	1		09:13	X															
IC 280-280670/2			09:16	X															
IC 280-280670/3			09:18	X															
ZZZZZZ			09:21																
ZZZZZZ			09:23																
ICVH 280-280670/6	1		09:26	X															
ICV 280-280670/7	1		09:29	X															
ZZZZZZ			09:33																
ICVL 280-280670/9			09:38																
ICVL 280-280670/10	1		09:40	X															
CCVH 280-280670/11			09:43																
CCV 280-280670/12			09:46																
ICB 280-280670/13	1		09:48	X															
CRI 280-280670/14	1		09:52	X															
CRI 280-280670/15			09:59																
ICSA 280-280670/16	1		10:05	X															
ICSAB 280-280670/17	1		10:09	X															
LRA 280-280670/18			10:11																
CCVH 280-280670/19			10:14																
CCV 280-280670/20			10:17																
CCB 280-280670/21			10:19																
CCVL 280-280670/22			10:23																
ZZZZZZ			11:01																
ZZZZZZ			11:03																
ZZZZZZ			11:06																
ZZZZZZ			11:09																
ZZZZZZ			11:12																
ZZZZZZ			11:15																
ZZZZZZ			11:18																
ZZZZZZ			11:22																
ZZZZZZ			11:25																
ZZZZZZ			11:29																
CCVH 280-280670/33			11:32																
CCV 280-280670/34			11:35																
CCB 280-280670/35			11:37																
CCVL 280-280670/36			11:40																
ZZZZZZ			11:42																
ZZZZZZ			11:45																
ZZZZZZ			11:49																
ZZZZZZ			11:52																
ZZZZZZ			11:55																
ZZZZZZ			11:59																

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Instrument ID: MT_025 Method: 6010C

Start Date: 06/05/2015 09:13 End Date: 06/05/2015 14:32

Lab Sample ID	D / F	Type	Time	Analytes															
				Fe															
ZZZZZZ			12:02																
ZZZZZZ			12:05																
ZZZZZZ			12:08																
CCVH 280-280670/46			12:10																
CCV 280-280670/47			12:13																
CCB 280-280670/48			12:15																
CCVL 280-280670/49			12:20																
ZZZZZZ			12:23																
ZZZZZZ			12:30																
ZZZZZZ			12:32																
ZZZZZZ			12:35																
ZZZZZZ			12:38																
ZZZZZZ			12:40																
ZZZZZZ			12:43																
ZZZZZZ			12:45																
CCVH 280-280670/58			12:48																
CCV 280-280670/59			12:50																
CCB 280-280670/60			12:53																
CCVL 280-280670/61			12:55																
ZZZZZZ			12:58																
ZZZZZZ			13:00																
ZZZZZZ			13:03																
ZZZZZZ			13:06																
ZZZZZZ			13:08																
ZZZZZZ			13:11																
ZZZZZZ			13:14																
ZZZZZZ			13:16																
ZZZZZZ			13:19																
CCVH 280-280670/71	1		13:22	X															
CCV 280-280670/72	1		13:24	X															
CCB 280-280670/73	1		13:27	X															
CCVL 280-280670/74	1		13:29	X															
MB 280-280173/1-A	1	R	13:32	X															
LCS 280-280173/2-A	1	R	13:34	X															
280-69589-2	1	D	13:37	X															
280-69589-2 SD	5	D	13:39	X															
280-69589-2 MS	1	D	13:42	X															
280-69589-2 MSD	1	D	13:44	X															
280-69589-2 PDS	1	D	13:47	X															
ZZZZZZ			13:49																
CCVH 280-280670/83	1		13:52	X															
CCV 280-280670/84	1		13:54	X															

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Instrument ID: MT_025 Method: 6010C

Start Date: 06/05/2015 09:13 End Date: 06/05/2015 14:32

Lab Sample ID	D / F	T y p e	Time	Analytes																			
				F e																			
CCB 280-280670/85	1		13:57	X																			
CCVL 280-280670/86	1		13:59	X																			
ZZZZZZ			14:02																				
ZZZZZZ			14:04																				
ZZZZZZ			14:07																				
ZZZZZZ			14:09																				
ZZZZZZ			14:12																				
ZZZZZZ			14:14																				
ZZZZZZ			14:17																				
ZZZZZZ			14:19																				
ZZZZZZ			14:22																				
CCVH 280-280670/96			14:25																				
CCV 280-280670/97			14:27																				
CCB 280-280670/98			14:30																				
CCVL 280-280670/99			14:32																				

Prep Types
D = Dissolved
R = Total Recoverable

Sample Name: ICIS Acquired: 5/30/2015 11:31:50 Type: Cal
 Method: 6500_025(v16) Mode: IR Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-0.0068	.00057	-0.00554	-0.00023	.00093	.00203	-0.00916	-0.00197	.00498	.00024	-0.00059	-0.02746
Stddev	.00001	.00002	.00004	.00011	.00006	.00034	.00101	.00002	.00029	.00056	.00015	.15194
%RSD	1.9467	3.4511	.64110	47.785	6.2371	16.889	10.978	1.0583	5.8937	233.17	24.667	553.23
#1	-0.0069	.00056	-0.00557	-0.00015	.00089	.00227	-0.00845	-0.00198	.00519	-0.00016	-0.00070	-.13491
#2	-0.0067	.00059	-0.00552	-0.00031	.00097	.00179	-0.00987	-0.00195	.00477	.00064	-0.00049	.07998
Elem	Cu3247	Fe2599	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Na8183	Ni2316	P_1782
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00298	.00239	.00032	.00071	-0.00446	.00013	.00023	-0.00013	.00995	-0.01900	-0.00118	-0.00025
Stddev	.00008	.00002	.00053	.00053	.00166	.00002	.00000	.00007	.00138	.00064	.00009	.00009
%RSD	2.5518	.84154	167.36	75.040	37.330	12.638	.33373	54.718	13.849	3.3906	7.5522	38.079
#1	.00293	.00241	.00069	.00033	-0.00563	.00014	.00023	-0.00018	.00898	-0.01855	-0.00112	-0.00018
#2	.00303	.00238	-0.00006	.00109	-0.00328	.00012	.00023	-0.00008	.01093	-0.01946	-0.00124	-0.00031
Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-0.00082	-0.00101	.00050	.00034	.00250	.00250	-0.00008	-0.00427	-0.00008	-0.00031	-0.00017	-0.00003
Stddev	.00001	.00004	.00011	.00002	.00068	.00068	.00008	.00057	.00000	.00006	.00022	.00011
%RSD	.92613	4.3527	21.120	5.3021	27.238	27.238	97.797	13.241	5.4681	19.087	130.44	317.89
#1	-0.00083	-0.00105	.00057	.00035	.00202	.00202	-0.00014	-0.00387	-0.00008	-0.00035	-0.00033	-0.00011
#2	-0.00082	-0.00098	.00042	.00032	.00298	.00298	-0.00002	-0.00467	-0.00008	-0.00027	-0.00001	.00004
Elem	V_2924	Zn2062	Zr3391									
Units	Cts/S	Cts/S	Cts/S									
Avg	-0.00097	.00001	-0.00376									
Stddev	.00005	.00001	.00040									
%RSD	4.9065	50.530	10.507									
#1	-0.00093	.00001	-0.00404									
#2	-0.00100	.00002	-0.00348									
Int. Std.	Y_2243	Y_3600	Y_3774									
Units	Cts/S	Cts/S	Cts/S									
Avg	2996.1	51543.	5898.7									
Stddev	2.0	114.	2.1									
%RSD	.06656	.22141	.03491									
#1	2994.7	51462.	5900.1									
#2	2997.5	51623.	5897.2									

Sample Name: ICAL1 Acquired: 5/30/2015 11:34:14 Type: Cal
 Method: 6500_025(v16) Mode: IR Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.20951	.24051	.08974	.28614	5.1797	6.9187	1.7910	1.8045	.93599	2886.7	.32305	.80255	3.7433
Stddev	.00019	.00008	.00009	.00036	.0036	.0045	.0004	.0003	.00097	2.2	.00020	.00413	.0037
%RSD	.09101	.03451	.10066	.12498	.07029	.06456	.02473	.01594	.10365	.07449	.06269	.51463	.09753

#1	.20964	.24057	.08967	.28589	5.1771	6.9155	1.7907	1.8047	.93530	2885.1	.32319	.79963	3.7407
#2	.20937	.24046	.08980	.28640	5.1823	6.9218	1.7913	1.8043	.93668	2888.2	.32290	.80547	3.7459

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	Sb2068	Se1960	Si2881	SiO2	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.2230	.74235	1.0400	.48305	1.6314	.73304	.09906	.47082	.19461	.08145	.29562	.29562	.21722
Stddev	.0037	.00204	.0006	.00238	.0050	.00470	.00023	.00152	.00070	.00018	.00225	.00225	.00035
%RSD	.16404	.27489	.05549	.49214	.30489	.64072	.23100	.32283	.36159	.22222	.76048	.76048	.16202

#1	2.2256	.74379	1.0404	.48473	1.6279	.73637	.09890	.47189	.19511	.08158	.29403	.29403	.21747
#2	2.2204	.74091	1.0396	.48137	1.6350	.72972	.09922	.46974	.19411	.08132	.29721	.29721	.21698

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	10.188	.28738	.17496	.17022	.01953	.36888
Stddev	.005	.00048	.00000	.00002	.00005	.00111
%RSD	.04816	.16831	.00059	.01182	.27881	.30210

#1	10.185	.28772	.17496	.17024	.01957	.36967
#2	10.192	.28703	.17495	.17021	.01949	.36809

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3022.6	51360.	5988.1
Stddev	5.5	159.	34.5
%RSD	.18225	.31021	.57631

#1	3018.7	51247.	6012.5
#2	3026.5	51472.	5963.7

Sample Name: ICAL2 Acquired: 5/30/2015 11:36:41 Type: Cal
 Method: 6500_025(v16) Mode: IR Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Al3092	Bi2230	Fe2714	Na8183	S_1820	Th2837	U_3701
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.3173	.31797	.69856	2.2771	.28616	.47662	.12689
Stddev	.0060	.00332	.00070	.0025	.00186	.00056	.00064
%RSD	.18099	1.0431	.10088	.10873	.65169	.11762	.50170
#1	3.3130	.32032	.69906	2.2789	.28748	.47702	.12734
#2	3.3215	.31563	.69806	2.2754	.28484	.47622	.12644
Int. Std.	Y_2243	Y_3600	Y_3774				
Units	Cts/S	Cts/S	Cts/S				
Avg	3048.6	50746.	5969.4				
Stddev	21.7	39.	18.0				
%RSD	.71251	.07591	.30161				
#1	3033.3	50719.	5956.7				
#2	3064.0	50773.	5982.1				

Sample Name: s1-3296663 Acquired: 5/30/2015 11:39:24 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0172	1.0257	2.0451	1.0287	.99757	.99835	.00063	10.038	1.0237	1.0056	1.0386	1.0198	5.0193
Stddev	.0004	.0022	.0040	.0000	.00031	.00047	.00173	.004	.0007	.0006	.0008	.0007	.0046
%RSD	.03475	.21770	.19464	.00149	.03058	.04684	274.49	.04123	.06447	.05537	.08125	.07125	.09219

#1	1.0169	1.0273	2.0479	1.0287	.99778	.99802	.00185	10.036	1.0241	1.0059	1.0380	1.0203	5.0160
#2	1.0174	1.0242	2.0423	1.0288	.99735	.99868	-.00059	10.041	1.0232	1.0052	1.0392	1.0192	5.0226

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	100.09	2.0012	40.722	1.0078	1.0058	10.087	10.233	.99201	2.0623	2.0347	.00208	2.0652	2.0667
Stddev	.07	.0024	.043	.0015	.0023	.044	.146	.00153	.0047	.0034	.00269	.0025	.0055
%RSD	.07066	.11931	.10457	.14943	.22940	.43887	1.4259	.15425	.22711	.16701	128.98	.12114	.26697

#1	100.04	1.9996	40.692	1.0067	1.0041	10.118	10.336	.99309	2.0590	2.0323	.00018	2.0635	2.0628
#2	100.14	2.0029	40.752	1.0088	1.0074	10.056	10.129	.99093	2.0656	2.0371	.00398	2.0670	2.0706

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass					
Value													
Range													

Elem	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.9038	21.194	2.0355	.99881	-.00454	1.0068	2.0434	-.05659	1.0069	1.0087	.99426
Stddev	.0213	.046	.0048	.00068	.00145	.0008	.0076	.00237	.0018	.0020	.00181
%RSD	.21551	.21551	.23683	.06810	31.900	.07981	.37424	4.1844	.17591	.20117	.18180

#1	9.8887	21.162	2.0321	.99929	-.00352	1.0062	2.0380	-.05492	1.0056	1.0102	.99298
#2	9.9189	21.227	2.0389	.99833	-.00557	1.0074	2.0488	-.05827	1.0081	1.0073	.99554

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3124.7	53121.	6277.2
Stddev	5.8	43.	9.0
%RSD	.18413	.08151	.14301

#1	3120.6	53152.	6270.9
#2	3128.8	53090.	6283.6

Sample Name: s2-3294467 Acquired: 5/30/2015 11:41:50 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.1350	100.00	-0.00491	.00353	.00134	.00030	2.0371	.07081	-0.00020	-0.00073	.00112	.00190	101.48
Stddev	.00047	.67	.00194	.00034	.00009	.00010	.0198	.00108	.00002	.00017	.00006	.00020	.35
%RSD	3.4660	.66592	39.576	9.6081	6.4348	32.402	.97198	1.5189	10.908	23.372	5.2080	10.698	.34255

#1	-0.1317	99.533	-0.00628	.00377	.00128	.00037	2.0511	.07005	-0.00018	-0.00061	.00108	.00176	101.23
#2	-0.1383	100.47	-0.00353	.00329	.00140	.00023	2.0231	.07157	-0.00022	-0.00085	.00116	.00205	101.72

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19810	.00150	.07573	-0.00256	-0.00019	498.48	.00452	.01286	.00344	10.256	-0.01862	.01919	-0.06766
Stddev	.00987	.00067	.01059	.00005	.00016	.77	.00002	.00022	.00239	.070	.00185	.00048	.00327
%RSD	4.9848	44.739	13.990	2.0032	83.662	.15380	.43543	1.7453	69.578	.68540	9.9261	2.4840	4.8365

#1	.20508	.00197	.06824	-.00260	-.00030	497.94	.00450	.01271	.00513	10.306	-.01993	.01885	-.06997
#2	.19112	.00102	.08322	-.00253	-.00008	499.02	.00453	.01302	.00175	10.206	-.01732	.01953	-.06534

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.14479	-0.00208	.00100	9.9918	-0.02909	.00197	20.120	.00461	.00169	-0.23869
Stddev	.00700	.00037	.00008	.0190	.00055	.00047	.037	.00020	.00025	.00238
%RSD	4.8365	17.912	8.2602	.19047	1.8936	23.735	.18538	4.3806	14.623	.99764

#1	-0.14974	-0.00234	.00106	9.9783	-.02948	.00230	20.093	.00446	.00186	-.24038
#2	-.13984	-0.00181	.00095	10.005	-.02870	.00164	20.146	.00475	.00151	-.23701

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3056.1	51678.	6206.6
Stddev	4.9	300.	29.5
%RSD	.16118	.57963	.47555

#1	3059.6	51890.	6185.8
#2	3052.6	51466.	6227.5

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00361	39.038	-0.00332	.00047	.00009	-0.00009	.49933	.01479	-0.00019	.00004	.00036
Stddev	.00002	.047	.00384	.00006	.00005	.00003	.00307	.00058	.00011	.00014	.00032
%RSD	.58700	.12164	115.70	13.191	54.931	33.732	.61568	3.9514	56.904	369.90	88.629

#1	-0.00360	39.072	-0.00603	.00043	.00012	-0.00011	.49716	.01438	-0.00026	-0.00006	.00013
#2	-0.00363	39.005	-0.00060	.00052	.00005	-0.00007	.50150	.01521	-0.00011	.00014	.00058

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00058	76.943	-0.04036	.00060	.01638	-0.00027	-0.00100	40.497	.00211	.00380	-0.00077
Stddev	.00023	.140	.04502	.00091	.00834	.00007	.00042	.046	.00015	.00117	.00021
%RSD	39.571	.18223	111.54	150.60	50.888	27.297	42.058	.11255	7.0851	30.804	27.016

#1	-0.00075	76.843	-0.07219	-0.0004	.01049	-0.00032	-0.00129	40.465	.00221	.00297	-0.00092
#2	-0.00042	77.042	-0.00853	.00125	.02228	-0.00022	-0.00070	40.529	.00200	.00462	-0.00063

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 3.7440	-0.00991	.00136	-0.01574	-0.03368	-0.00092	.00028	2.8657	-0.00831	.00099	4.9858
Stddev	.0280	.00190	.00142	.00243	.00519	.00012	.00003	.0053	.00020	.00331	.0498
%RSD	.74870	19.153	104.31	15.411	15.411	12.841	10.430	.18325	2.4571	336.13	.99884

#1	3.7242	-.01125	.00237	-0.01745	-0.03735	-0.00084	.00030	2.8694	-.00846	-.00136	4.9506
#2	3.7639	-.00856	.00036	-0.01402	-0.03001	-0.00100	.00026	2.8620	-.00817	.00333	5.0210

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	4.0000										
Range	-5.4900%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00176	-0.00020	-0.07075
Stddev	.00036	.00033	.00125
%RSD	20.517	160.75	1.7737

#1	.00150	.00003	-.07164
#2	.00201	-0.00044	-0.06986

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3105.1	54064.	6305.4
Stddev	25.5	163.	25.2
%RSD	.82159	.30226	.39937

#1	3087.0	54180.	6323.2
#2	3123.1	53949.	6287.6

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.25092	W .26503	.24902	.25284	.24370	.24209	.00133	1.9932	.25436	.25086	.25600
Stddev	.00145	.00158	.00220	.00028	.00018	.00111	.00052	.0014	.00153	.00194	.00208
%RSD	.57885	.59525	.88461	.11126	.07248	.45776	38.982	.07136	.60123	.77194	.81435

#1	.24989	.26392	.25058	.25304	.24358	.24287	.00097	1.9922	.25544	.25223	.25748
#2	.25194	.26615	.24746	.25264	.24383	.24131	.00170	1.9942	.25328	.24949	.25453

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		.25000									
Range		5.4900%									

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24806	.24983	19.723	.25268	10.177	.24796	.24399	2.0308	.24837	2.0312	.25294
Stddev	.00117	.00088	.078	.00391	.018	.00014	.00189	.0375	.00053	.0119	.00241
%RSD	.47274	.35149	.39714	1.5492	.17522	.05457	.77646	1.8470	.21312	.58633	.95410

#1	.24723	.25045	19.778	.24991	10.190	.24786	.24533	2.0043	.24875	2.0396	.25464
#2	.24889	.24921	19.668	.25545	10.165	.24805	.24265	2.0574	.24800	2.0227	.25123

Check ?	Chk Pass										
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00413	.25524	.51194	1.9807	4.2387	.50871	.24406	-.00062	.24742	.51833	-.04045
Stddev	.00292	.00149	.00417	.0562	.1203	.00431	.00017	.00029	.00003	.00419	.00937
%RSD	70.637	.58452	.81412	2.8390	2.8390	.84722	.06964	47.413	.01262	.80782	23.157

#1	.00207	.25629	.51488	1.9409	4.1536	.51176	.24418	-.00041	.24740	.52130	-.04708
#2	.00619	.25418	.50899	2.0204	4.3238	.50567	.24394	-.00083	.24744	.51537	-.03383

Check ?	None	Chk Pass	None	Chk Pass	Chk Pass	None					
Value											
Range											

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.24608	.24779	.24469
Stddev	.00024	.00253	.00500
%RSD	.09697	1.0223	2.0427

#1	.24591	.24958	.24116
#2	.24625	.24600	.24823

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3148.3	53686.	6111.2
Stddev	9.8	95.	23.4
%RSD	.31076	.17710	.38275

#1	3155.2	53619.	6094.7
#2	3141.3	53754.	6127.8

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24324	.25759	.24197	.24578	.24470	.24102	.00029	1.9947	.24696	.24932	.25452	.24081	.24591
Stddev	.00103	.00014	.00294	.00056	.00064	.00072	.00116	.0029	.00045	.00057	.00045	.00030	.00114
%RSD	.42438	.05395	1.2156	.22879	.26171	.29830	401.84	.14518	.18372	.22904	.17699	.12318	.46367
#1	.24397	.25749	.24405	.24538	.24425	.24051	.00111	1.9968	.24664	.24891	.25420	.24102	.24511
#2	.24251	.25769	.23989	.24618	.24516	.24152	-.00053	1.9927	.24728	.24972	.25484	.24060	.24672

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.546	.24767	9.9256	.24469	.24551	1.9565	.24665	1.9779	.24855	.00084	.24991	.49467	1.9451
Stddev	.047	.00000	.0363	.00032	.00054	.0167	.00049	.0034	.00079	.00231	.00092	.00327	.0037
%RSD	.24266	.00171	.36537	.13127	.22162	.85111	.19879	.17061	.31738	276.57	.36795	.66057	.18833
#1	19.512	.24768	9.9513	.24447	.24512	1.9682	.24630	1.9803	.24910	.00247	.25056	.49698	1.9426
#2	19.579	.24767	9.9000	.24492	.24589	1.9447	.24700	1.9755	.24799	-.00080	.24926	.49236	1.9477

Check ?	Chk Pass	None	Chk Pass	Chk Pass									
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.1626	.50532	.24363	-.00152	.24748	.51134	-.02203	.24350	.24380	.24241
Stddev	.0078	.00070	.00042	.00087	.00014	.00213	.00299	.00130	.00216	.00216
%RSD	.18833	.13889	.17281	56.848	.05702	.41691	13.576	.53315	.88518	.89238
#1	4.1571	.50581	.24333	-.00091	.24738	.50983	-.02414	.24442	.24227	.24394
#2	4.1681	.50482	.24393	-.00214	.24758	.51284	-.01991	.24258	.24532	.24088

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3128.4	53520.	6113.8
Stddev	4.9	154.	11.9
%RSD	.15650	.28716	.19536
#1	3131.9	53411.	6122.3
#2	3125.0	53629.	6105.4

Sample Name: ICV-3289337 Acquired: 5/30/2015 12:05:38 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24315	.25792	.24631	.24866	.24428	.24064	.00062	1.9758	.25019	.25051	.25559	.24327	.24539
Stddev	.00046	.00057	.00120	.00110	.00107	.00018	.00121	.0183	.00070	.00076	.00137	.00039	.00265
%RSD	.18851	.22075	.48756	.44401	.43963	.07622	195.33	.92577	.28096	.30352	.53678	.15996	1.0814

#1	.24283	.25752	.24546	.24788	.24352	.24051	.00148	1.9629	.25068	.25104	.25656	.24354	.24351
#2	.24348	.25832	.24716	.24945	.24504	.24077	-.00024	1.9887	.24969	.24997	.25462	.24299	.24726

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.390	.24640	9.9253	.24472	.24762	1.9653	.24871	1.9997	.25224	.00300	.25067	.49449	1.9471
Stddev	.038	.00156	.0357	.00056	.00167	.0275	.00100	.0177	.00021	.00031	.00301	.00119	.0284
%RSD	.19381	.63328	.36017	.22788	.67507	1.3980	.40106	.88596	.08446	10.252	1.1992	.24158	1.4604

#1	19.363	.24529	9.9506	.24433	.24880	1.9459	.24942	2.0122	.25239	.00321	.25279	.49534	1.9270
#2	19.416	.24750	9.9001	.24512	.24644	1.9847	.24801	1.9871	.25209	.00278	.24854	.49365	1.9672

Check ?	Chk Pass	None	Chk Pass	Chk Pass									
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.1668	.51069	.24332	-.00180	.24793	.51550	-.00676	.24378	.24243	.24094
Stddev	.0609	.00092	.00041	.00182	.00028	.00108	.00379	.00075	.00093	.00207
%RSD	1.4604	.17990	.17048	101.12	.11320	.21008	56.059	.30880	.38272	.86107

#1	4.1237	.51134	.24303	-.00051	.24813	.51473	-.00944	.24325	.24177	.23947
#2	4.2098	.51004	.24362	-.00309	.24773	.51627	-.00408	.24432	.24308	.24241

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3116.7	53451.	6118.9
Stddev	3.7	209.	37.8
%RSD	.11928	.39159	.61757

#1	3119.3	53599.	6145.6
#2	3114.1	53303.	6092.2

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01003	.10704	.01508	.10552	.01040	.00090	.10654	.20629	.00514	.01069	.01080	.01548
Stddev	.00008	.00113	.00253	.00061	.00020	.00008	.00374	.00532	.00029	.00015	.00014	.00004
%RSD	.80629	1.0534	16.779	.58133	1.8988	8.3650	3.5146	2.5799	5.5885	1.3974	1.3071	.24376

#1	.00997	.10784	.01329	.10508	.01054	.00085	.10919	.20253	.00535	.01059	.01090	.01551
#2	.01009	.10625	.01687	.10595	.01026	.00095	.10389	.21006	.00494	.01080	.01070	.01545

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10056	3.0385	.00936	.21533	.01070	.02059	1.0315	.04239	2.9863	.00999	.00762	.00913
Stddev	.00289	.0204	.00020	.00922	.00028	.00008	.0005	.00012	.0474	.00135	.00016	.00088
%RSD	2.8783	.67273	2.1251	4.2812	2.6321	.38531	.04476	.28619	1.5856	13.537	2.1584	9.6624

#1	.09851	3.0240	.00950	.22185	.01050	.02054	1.0311	.04248	3.0198	.00904	.00751	.00851
#2	.10260	3.0529	.00921	.20881	.01090	.02065	1.0318	.04231	2.9528	.01095	.00774	.00976

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01749	.49285	1.0547	.10566	.01031	.01780	.01039	.01510	F .03700	.01051	.02306	.01381
Stddev	.00399	.01418	.0303	.00039	.00012	.00047	.00019	.00088	.02187	.00040	.00114	.00022
%RSD	22.813	2.8766	2.8766	.37282	1.1988	2.6270	1.8177	5.8575	59.105	3.8074	4.9275	1.6141

#1	.01467	.48282	1.0332	.10538	.01022	.01747	.01025	.01572	.05246	.01080	.02226	.01365
#2	.02032	.50287	1.0762	.10594	.01039	.01813	.01052	.01447	.02154	.01023	.02387	.01397

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass							
Value									.06000			
Range									-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3093.6	53141.	6153.3
Stddev	3.3	245.	12.7
%RSD	.10827	.46061	.20593

#1	3091.3	52968.	6162.3
#2	3096.0	53314.	6144.4

Sample Name: CCVH-3294468 Acquired: 5/30/2015 12:14:02 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00759	49.687	-0.00178	.00192	.00040	.00004	1.0244	.03784	-0.00022	-0.00030	.00087	.00137	50.120
Stddev	.00014	.274	.00080	.00005	.00006	.00001	.0080	.00160	.00001	.00022	.00014	.00002	.384
%RSD	1.8127	.55194	44.703	2.5737	13.836	27.895	.78601	4.2388	4.5152	74.018	16.551	1.7120	.76621

#1	-0.00769	49.881	-0.00235	.00195	.00044	.00004	1.0300	.03897	-0.00023	-0.00046	.00077	.00135	50.391
#2	-0.00749	49.493	-0.00122	.00188	.00036	.00003	1.0187	.03670	-0.00021	-0.00014	.00097	.00138	49.848

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.01212	-0.00180	.03629	-0.00089	-0.00026	250.10	.00227	.00733	.00210	5.0795	-0.01045	.00801	-0.04989
Stddev	.00290	.00095	.00147	.00017	.00023	1.59	.00009	.00103	.00023	.0187	.00067	.00526	.00952
%RSD	23.889	52.796	4.0481	19.234	89.092	.63608	3.9648	14.096	11.135	.36718	6.3904	65.681	19.083

#1	-0.01007	-0.00112	.03733	-0.00101	-0.00010	251.23	.00221	.00806	.00193	5.0927	-0.00998	.00429	-0.05663
#2	-0.01417	-0.00247	.03525	-0.00077	-0.00042	248.98	.00234	.00660	.00226	5.0663	-0.01093	.01173	-0.04316

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.10677	-0.00159	.00037	4.9604	-0.01402	.00192	10.472	.00266	.00110	-0.11877
Stddev	.02038	.00025	.00009	.0236	.00084	.00160	.031	.00027	.00047	.00058
%RSD	19.083	15.453	25.336	.47626	5.9565	83.189	.29593	9.9735	42.725	.48802

#1	-0.12118	-0.00142	.00043	4.9771	-0.01462	.00079	10.450	.00285	.00144	-0.11836
#2	-0.09237	-0.00176	.00030	4.9437	-0.01343	.00305	10.494	.00247	.00077	-0.11918

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3069.6	52157.	6074.7
Stddev	15.3	474.	38.5
%RSD	.49905	.90813	.63351

#1	3058.8	51822.	6047.5
#2	3080.4	52492.	6101.9

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49455	W .53477	1.0106	.51439	.48872	.48661	-.00046	4.9910	.50567	.51648	.52434
Stddev	.00433	.00234	.0002	.00031	.00031	.00063	.00110	.0080	.00060	.00241	.00033
%RSD	.87652	.43849	.02076	.06110	.06354	.13049	241.46	.15928	.11774	.46726	.06296

#1	.49761	.53643	1.0108	.51417	.48894	.48616	.00032	4.9966	.50525	.51819	.52410
#2	.49148	.53311	1.0105	.51462	.48850	.48705	-.00123	4.9854	.50609	.51478	.52457

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		.50000									
Range		5.0000%									

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49709	2.4945	48.896	.97732	19.798	.49537	.50346	5.0477	.51047	1.0210	1.0165
Stddev	.00150	.0030	.100	.00287	.104	.00243	.00127	.0459	.00143	.0001	.0028
%RSD	.30242	.11955	.20467	.29360	.52310	.49021	.25142	.90944	.27921	.01165	.27140

#1	.49816	2.4966	48.967	.97530	19.871	.49708	.50435	5.0801	.51148	1.0209	1.0184
#2	.49603	2.4924	48.825	.97935	19.725	.49365	.50256	5.0152	.50946	1.0211	1.0145

Check ?	Chk Pass										
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00241	1.0172	1.0079	4.9101	10.508	1.0220	.48841	-.00125	.49266	1.0386	-.03090
Stddev	.00439	.0039	.0093	.0298	.064	.0042	.00020	.00140	.00244	.0010	.02306
%RSD	182.17	.38363	.92444	.60767	.60767	.40807	.04176	111.85	.49575	.09141	74.622

#1	.00551	1.0200	1.0145	4.9312	10.553	1.0250	.48827	-.00026	.49439	1.0393	-.04721
#2	-.00069	1.0145	1.0013	4.8890	10.462	1.0191	.48855	-.00223	.49094	1.0380	-.01460

Check ?	None	Chk Pass	None	Chk Pass	Chk Pass	None					
Value											
Range											

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.49285	.50178	.49217
Stddev	.00274	.00045	.00272
%RSD	.55612	.09058	.55343

#1	.49479	.50146	.49025
#2	.49092	.50210	.49410

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3066.2	53282.	6202.2
Stddev	2.6	48.	25.0
%RSD	.08413	.08960	.40240

#1	3064.3	53316.	6184.6
#2	3068.0	53249.	6219.9

Sample Name: ICB Acquired: 5/30/2015 12:19:14 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00007	.00148	-.00320	.00183	-.00001	-.00007	.00018	.00280	.00005	.00004	-.00002	-.00012	.00188
Stddev	.00004	.00034	.00074	.00014	.00034	.00014	.00021	.00250	.00023	.00021	.00001	.00019	.00213
%RSD	49.942	23.282	23.092	7.5831	2803.5	190.63	113.78	89.180	455.14	467.06	84.925	162.54	113.40

#1	.00010	.00172	-.00372	.00174	-.00026	.00003	.00033	.00457	-.00011	.00019	-.00003	-.00025	.00037
#2	.00005	.00124	-.00268	.00193	.00023	-.00017	.00004	.00104	.00022	-.00010	-.00001	.00002	.00338

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00658	-.00123	.00815	.00008	.00019	.01773	.00030	.00151	-.00049	.00119	-.00293	-.00327	-.01107
Stddev	.00842	.00106	.00594	.00003	.00057	.01458	.00071	.00111	.00060	.00776	.00141	.00513	.00301
%RSD	127.93	86.513	72.875	31.882	294.01	82.211	234.03	73.401	122.35	651.76	47.970	156.82	27.171

#1	-.00063	-.00198	.01234	.00006	-.00021	.02804	.00081	.00072	-.00007	-.00430	-.00392	-.00690	-.01319
#2	-.01253	-.00048	.00395	.00010	.00060	.00742	-.00020	.00229	-.00091	.00668	-.00194	.00036	-.00894

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.02368	.00065	.00019	.00208	-.00004	-.00071	-.00428	.00006	.00033	-.00021
Stddev	.00643	.00021	.00012	.00060	.00007	.00160	.00224	.00008	.00046	.00011
%RSD	27.171	32.230	63.155	29.047	180.55	224.77	52.482	144.82	138.85	53.521

#1	-.02823	.00080	.00027	.00250	-.00008	-.00185	-.00269	.00000	.00065	-.00029
#2	-.01913	.00050	.00010	.00165	.00001	.00042	-.00586	.00012	.00001	-.00013

Check ?	Chk Pass									
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3104.4	53302.	6107.9
Stddev	1.6	135.	6.6
%RSD	.05172	.25373	.10760

#1	3103.3	53398.	6103.2
#2	3105.5	53207.	6112.5

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00950	.10330	W .00732	.10301	.00490	.00090	.10418	.20249	.00504	.00542	.01038
Stddev	.00016	.00103	.00370	.00058	.00005	.00000	.00011	.00211	.00023	.00006	.00020
%RSD	1.6588	.99582	50.598	.56234	.95132	.50486	.10657	1.0422	4.5917	1.1208	1.9250

#1	.00961	.10257	.00470	.10342	.00493	.00091	.10426	.20398	.00520	.00537	.01024
#2	.00939	.10403	.00994	.10260	.00486	.00090	.10411	.20099	.00487	.00546	.01052

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass							
Value			.01000								
Range			-20.490%								

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01019	.03054	.98108	.00817	.20241	.00311	.00978	1.0121	.01021	.98158	W .00393
Stddev	.00008	.00119	.01935	.00127	.00089	.00005	.00003	.0136	.00012	.00164	.00023
%RSD	.73929	3.8974	1.9725	15.586	.43978	1.7239	.31161	1.3465	1.1754	.16715	5.8081

#1	.01025	.03138	.96740	.00907	.20304	.00307	.00980	1.0025	.01012	.98274	.00410
#2	.01014	.02970	.99477	.00727	.20178	.00315	.00975	1.0218	.01029	.98042	.00377

Check ?	Chk Pass	Chk Warn									
Value											.00300
Range											20.490%

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09852	W .00726	.00970	.46422	.99343	.02131	.00499	W .01336	.01006	.01128	W .03840
Stddev	.00083	.00027	.00107	.01463	.03131	.00052	.00019	.00026	.00025	.00112	.02166
%RSD	.84257	3.6724	11.013	3.1514	3.1514	2.4300	3.7325	1.9109	2.4457	9.9389	56.413

#1	.09793	.00708	.01045	.45387	.97129	.02095	.00486	.01354	.00989	.01049	.05372
#2	.09910	.00745	.00894	.47456	1.0156	.02168	.00513	.01318	.01024	.01207	.02308

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn				
Value		.01000						.01000			.06000
Range		-20.490%						20.490%			-20.490%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00951	.01054	.00924
Stddev	.00029	.00054	.00203
%RSD	3.0876	5.1091	21.936

#1	.00930	.01016	.00781
#2	.00972	.01092	.01068

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3120.6	53780.	6162.1
Stddev	6.8	51.	8.9
%RSD	.21824	.09485	.14477

#1	3125.4	53744.	6168.4
#2	3115.8	53816.	6155.8

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00048	.00146	.00850	.00043	-0.00024	-0.00003	-0.00026	.00256	-0.00018
Stddev	.00004	.00005	.00059	.00104	.00009	.00008	.00043	.00059	.00003
%RSD	7.3153	3.4786	6.8840	242.62	39.445	291.47	166.05	22.952	16.084

#1	-0.00051	.00143	.00809	-0.00031	-0.00017	-0.00008	-0.00057	.00215	-0.00016
#2	-0.00046	.00150	.00892	.00116	-0.00030	.00003	.00005	.00298	-0.00020

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00005	.00001	-0.00066	-0.00040	-0.06302	-0.00147	-0.00274	-0.00008	.00031
Stddev	.00018	.00014	.00037	.00200	.02414	.00088	.00121	.00009	.00001
%RSD	348.95	2396.8	55.913	501.43	38.305	60.365	44.018	120.19	4.1232

#1	.00018	.00011	-0.00040	.00102	-0.04595	-0.00209	-0.00189	-0.00001	.00030
#2	-0.00008	-0.00010	-0.00092	-0.00181	-0.08009	-0.00084	-0.00360	-0.00014	.00032

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.01178	-0.00044	.00341	.00853	.00508	.00784	.00093	-0.02026	-0.04336
Stddev	.00785	.00009	.00007	.00129	.00168	.00043	.00070	.00339	.00726
%RSD	66.627	19.291	1.9924	15.146	33.021	5.5463	74.893	16.754	16.754

#1	-0.00623	-0.00038	.00336	.00944	.00390	.00753	.00044	-0.01786	-0.03822
#2	-0.01734	-0.00050	.00345	.00762	.00627	.00815	.00142	-0.02266	-0.04850

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00022	.00013	.01457	.00040	.00073	.00158	.00007	-0.00018	.00113
Stddev	.00064	.00007	.00079	.00016	.00281	.00657	.00016	.00048	.00126
%RSD	290.98	55.808	5.4001	40.935	386.24	416.30	240.31	265.19	111.72

#1	-0.00023	.00008	.01512	.00028	-0.00126	-0.00307	-0.00005	.00016	.00203
#2	.00067	.00018	.01401	.00051	.00271	.00623	.00018	-0.00052	.00024

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3132.0	53862.	6184.5
Stddev	8.3	70.	7.6
%RSD	.26538	.13041	.12218

#1	3137.9	53912.	6189.8
#2	3126.1	53813.	6179.1

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00038	513.14	.00488	-.00696	.00024	-.00017	-.00504	465.55	-.00076	-.00020	W .00410
Stddev	.00013	3.14	.00698	.00165	.00040	.00005	.00072	11.05	.00029	.00062	.00016
%RSD	33.199	.61108	143.07	23.660	171.69	26.594	14.280	2.3740	37.696	318.39	3.9134

#1	.00029	510.92	.00982	-.00813	.00052	-.00020	-.00555	457.74	-.00096	.00025	.00399
#2	.00047	515.36	-.00006	-.00580	-.00005	-.00014	-.00454	473.37	-.00056	-.00064	.00421

Check ?	Chk Pass	Chk Warn									
High Limit											.00186
Low Limit											-.00186

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00065	183.79	-.10616	.00275	507.12	W .00118	W -.00642	.02326	W .00843	-.00018	W .00522
Stddev	.00051	1.20	.02472	.00078	.10	.00005	.00077	.00192	.00120	.00408	.00045
%RSD	78.993	.65434	23.290	28.406	.01942	4.2154	12.050	8.2521	14.204	2314.8	8.5866

#1	.00101	182.94	-.12364	.00331	507.19	.00122	-.00697	.02191	.00928	-.00306	.00490
#2	.00029	184.64	-.08867	.00220	507.05	.00115	-.00588	.02462	.00758	.00271	.00553

Check ?	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Warn				
High Limit						.00050	.00626		.00258		.00500
Low Limit						-.00050	-.00626		-.00258		-.00500

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.10164	W -.01443	.00879	.00300	.00643	.00216	W .00453	F .02029	-.00007	W -.01209	-.16670
Stddev	.00807	.00039	.00202	.00950	.02034	.00001	.00002	.00111	.00001	.00659	.00656
%RSD	7.9383	2.6922	22.967	316.50	316.50	.69043	.43723	5.4503	7.8177	54.554	3.9335

#1	-.10734	-.01415	.01021	.00972	.02080	.00215	.00455	.02107	-.00008	-.01675	-.17134
#2	-.09593	-.01470	.00736	-.00372	-.00795	.00217	.00452	.01951	-.00007	-.00742	-.16206

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	None	Chk Pass	Chk Warn	Chk Fail	Chk Pass	Chk Warn	Chk Pass
High Limit		.00628					.00050	.02000		.00982	
Low Limit		-.00628					-.00050	-.02000		-.00982	

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00034	.00267	-.00427
Stddev	.00087	.00007	.00015
%RSD	257.32	2.5432	3.4017

#1	.00095	.00263	-.00417
#2	-.00028	.00272	-.00438

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2809.9	47381.	5875.9
Stddev	2.7	190.	48.7
%RSD	.09762	.40057	.82876

#1	2808.0	47516.	5910.4
#2	2811.9	47247.	5841.5

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00018	510.56	.00648	W -.00740	.00016	-.00025	-.00306	464.90	-.00063	-.00032	W .00406
Stddev	.00112	1.06	.00754	.00093	.00029	.00014	.00329	.59	.00010	.00037	.00017
%RSD	608.46	.20743	116.47	12.535	175.48	56.128	107.41	.12621	15.477	117.08	4.1458

#1	-.00061	511.31	.00114	-.00806	-.00004	-.00015	-.00539	464.49	-.00069	-.00005	.00418
#2	.00098	509.81	.01181	-.00675	.00037	-.00035	-.00074	465.32	-.00056	-.00058	.00394

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn					
High Limit				.00700							.00186
Low Limit				-.00700							-.00186

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00062	182.66	-.15660	.00254	504.49	W .00115	-.00542	.02115	W .00863	-.00794	W .00565
Stddev	.00064	.37	.01266	.00118	1.52	.00011	.00022	.00777	.00037	.00480	.00215
%RSD	104.55	.20235	8.0834	46.492	.30168	9.1516	4.1259	36.747	4.3087	60.361	37.958

#1	-.00107	182.92	-.14765	.00338	505.57	.00108	-.00526	.02664	.00837	-.01134	.00717
#2	-.00016	182.39	-.16555	.00171	503.41	.00123	-.00558	.01565	.00890	-.00455	.00413

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn				
High Limit						.00050			.00258		.00500
Low Limit						-.00050			-.00258		-.00500

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.09237	W -.00903	.00636	.00401	.00859	.00375	W .00447	W .01916	-.00028	W -.01018	-.19219
Stddev	.00722	.00159	.00260	.00832	.01781	.00275	.00001	.00564	.00009	.00089	.02148
%RSD	7.8165	17.556	40.946	207.45	207.45	73.235	.20632	29.438	31.597	8.7398	11.174

#1	-.08726	-.00791	.00820	-.00187	-.00401	.00569	.00447	.01517	-.00034	-.01081	-.17700
#2	-.09747	-.01016	.00452	.00990	.02118	.00181	.00446	.02315	-.00022	-.00955	-.20737

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	None	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Warn	Chk Pass
High Limit		.00628					.00050	.00800		.00982	
Low Limit		-.00628					-.00050	-.00800		-.00982	

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00071	.00249	W -.00589
Stddev	.00054	.00080	.00041
%RSD	75.917	32.069	6.9006

#1	.00110	.00305	-.00618
#2	.00033	.00192	-.00560

Check ?	Chk Pass	Chk Pass	Chk Warn
High Limit			.00476
Low Limit			-.00476

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2756.8	46181.	5773.0
Stddev	4.8	51.	32.4
%RSD	.17453	.11119	.56106

#1	2753.4	46217.	5795.9
#2	2760.2	46145.	5750.1

Sample Name: ICSAB-3290308 Acquired: 5/30/2015 12:49:46 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0465	503.03	1.9404	1.9326	.49186	.47017	.95804	461.64	1.0147	.45929	.44444	.51219	180.26
Stddev	.0018	.44	.0170	.0064	.00102	.00023	.00235	7.66	.0032	.00007	.00144	.00159	.00
%RSD	.16889	.08830	.87418	.33008	.20737	.04951	.24576	1.6585	.31405	.01489	.32425	.31002	.00263

#1	1.0478	502.72	1.9284	1.9281	.49258	.47000	.95638	456.23	1.0125	.45934	.44546	.51331	180.25
#2	1.0453	503.35	1.9524	1.9371	.49114	.47033	.95971	467.06	1.0170	.45924	.44342	.51107	180.26

Check ?	Chk Pass												
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.811	.98900	498.83	.48147	.91963	50.170	.91252	1.9259	.92457	.94546	.96758	4.8162	10.253
Stddev	.183	.00157	4.04	.00036	.00197	.520	.00620	.0212	.00042	.01789	.00301	.0229	.015
%RSD	.36747	.15874	.80986	.07452	.21439	1.0356	.67923	1.1025	.04591	1.8921	.31121	.47592	.14255

#1	49.940	.99011	495.97	.48121	.91824	49.802	.91690	1.9109	.92487	.93281	.96545	4.8000	10.263
#2	49.682	.98789	501.68	.48172	.92103	50.537	.90814	1.9410	.92427	.95811	.96971	4.8324	10.242

Check ?	Chk Pass												
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	21.940	8.9134	.94542	2.0060	.94806	8.4594	-.20714	.49725	.91704	.88297
Stddev	.031	.0090	.00066	.0043	.00147	.1016	.00269	.00234	.00119	.00117
%RSD	.14255	.10097	.06940	.21459	.15514	1.2005	1.2971	.47076	.12957	.13202

#1	21.962	8.9070	.94588	2.0091	.94910	8.5312	-.20524	.49891	.91788	.88380
#2	21.918	8.9197	.94496	2.0030	.94702	8.3876	-.20904	.49560	.91620	.88215

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass					
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2780.3	46860.	5894.4
Stddev	3.0	57.	6.3
%RSD	.10750	.12206	.10613

#1	2782.4	46900.	5890.0
#2	2778.2	46819.	5898.9

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00137	-.29703	9.6508	9.4977	11.817	-.00597	-.00948	.07879	1.9940	4.8461	9.6992	10.142	491.85
Stddev	.00036	.00504	.0215	.0355	.078	.00009	.00009	.00219	.0078	.0098	.0220	.007	2.52
%RSD	26.262	1.6975	.22314	.37432	.66228	1.4875	.98789	2.7774	.39259	.20141	.22674	.07121	.51289

#1	.00112	-.29346	9.6355	9.4725	11.761	-.00591	-.00955	.08034	1.9884	4.8392	9.6836	10.137	490.07
#2	.00163	-.30059	9.6660	9.5228	11.872	-.00603	-.00941	.07725	1.9995	4.8530	9.7147	10.147	493.64

Check ?	None	None	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.32007	-.00243	.00372	9.5104	4.7875	.00483	9.6716	.01008	9.7654	-.02108	.02498	4.9019	46.736
Stddev	.00129	.00036	.00295	.0873	.0101	.01692	.0169	.00097	.0153	.00236	.00358	.0698	.454
%RSD	.40186	14.980	79.111	.91823	.21080	350.16	.17418	9.6256	.15620	11.195	14.321	1.4230	.97231

#1	-.32098	-.00269	.00164	9.4486	4.7804	-.00713	9.6597	.01077	9.7547	-.02274	.02245	4.8526	46.415
#2	-.31916	-.00218	.00581	9.5721	4.7946	.01679	9.6835	.00940	9.7762	-.01941	.02750	4.9512	47.057

Check ?	None	None	None	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	None	None	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	100.01	.02321	9.7132	.05621	9.7543	5.0102	-.40025	9.7318	9.3808	-.00908
Stddev	.97	.00108	.1635	.00048	.0044	.0701	.03348	.0123	.0083	.00016
%RSD	.97231	4.6475	1.6831	.85431	.04486	1.3989	8.3643	.12625	.08801	1.8122

#1	99.327	.02245	9.5976	.05587	9.7574	4.9606	-.37658	9.7404	9.3750	-.00897
#2	100.70	.02398	9.8288	.05655	9.7512	5.0597	-.42392	9.7231	9.3867	-.00920

Check ?	None	None	Chk Pass	None	Chk Pass	None	None	Chk Pass	Chk Pass	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3008.6	51500.	5956.3
Stddev	.7	124.	57.5
%RSD	.02397	.24051	.96546

#1	3008.1	51588.	5997.0
#2	3009.1	51412.	5915.6

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0709	49.406	.00120	.01744	.00172	-.00015	1.0100	.03769	-.00021	.00004	.00081	.00169	50.044
Stddev	.00048	.049	.00075	.00182	.00064	.00011	.0048	.00089	.00033	.00029	.00012	.00042	.518
%RSD	6.7517	.09966	61.937	10.420	37.141	69.590	.47946	2.3585	159.69	777.67	14.880	24.942	1.0356

#1	-0.0675	49.371	.00173	.01873	.00217	-.00023	1.0135	.03706	.00003	.00024	.00072	.00139	49.678
#2	-0.0743	49.441	.00068	.01616	.00127	-.00008	1.0066	.03832	-.00045	-.00017	.00089	.00198	50.411

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.07498	.00169	.04275	-.00076	.00180	247.85	.00257	.00701	.00189	5.0254	-.01344	.00985	.01753
Stddev	.06090	.00040	.00151	.00014	.00017	.58	.00078	.00078	.00157	.0471	.00197	.00195	.00483
%RSD	81.220	23.360	3.5358	18.140	9.3009	.23564	30.250	11.114	83.110	.93646	14.670	19.810	27.573

#1	-0.3192	.00197	.04168	-.00066	.00168	248.26	.00312	.00646	.00078	5.0587	-.01484	.01123	.02095
#2	-1.1805	.00141	.04382	-.00086	.00192	247.43	.00202	.00756	.00299	4.9921	-.01205	.00847	.01412

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03752	-.00098	.00140	4.9577	-.01239	.00134	10.450	.00337	.00039	-.12160
Stddev	.01035	.00005	.00023	.0065	.00035	.00165	.020	.00036	.00009	.00221
%RSD	27.573	5.1216	16.269	.13196	2.8361	123.72	.18722	10.646	22.736	1.8213

#1	.04484	-.00101	.00156	4.9531	-.01214	.00017	10.464	.00362	.00046	-.12317
#2	.03021	-.00094	.00124	4.9623	-.01264	.00251	10.436	.00311	.00033	-.12003

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3004.3	50858.	6060.1
Stddev	10.8	99.	38.1
%RSD	.35997	.19437	.62835

#1	3012.0	50788.	6033.2
#2	2996.7	50927.	6087.1

Sample Name: CCV-3296664 Acquired: 5/30/2015 12:58:08 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49949	.53214	.99200	.51147	.49188	.49032	.00047	5.0285	.49992	.51079	.51522	.49725	2.5043
Stddev	.00322	.00508	.01175	.00148	.00043	.00063	.00012	.0114	.00110	.00423	.00403	.00067	.0048
%RSD	.64377	.95512	1.1845	.28910	.08766	.12789	26.446	.22630	.22016	.82811	.78142	.13476	.19136

#1	.49722	.53573	1.0003	.51252	.49218	.49077	.00038	5.0365	.50070	.50780	.51237	.49677	2.5009
#2	.50176	.52854	.98370	.51043	.49157	.48988	.00056	5.0204	.49914	.51378	.51807	.49772	2.5077

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.254	.98758	20.138	.50473	.49779	5.0079	.50394	1.0102	1.0054	.00207	.99724	.99198	4.9809
Stddev	.028	.00392	.053	.00042	.00404	.0179	.00392	.0099	.0114	.00145	.01377	.00808	.0122
%RSD	.05720	.39734	.26550	.08301	.81152	.35665	.77762	.97894	1.1330	70.040	1.3813	.81405	.24409

#1	49.274	.98481	20.100	.50444	.49494	5.0205	.50116	1.0032	.99739	.00309	.98750	.98627	4.9895
#2	49.234	.99036	20.176	.50503	.50065	4.9952	.50671	1.0172	1.0135	.00104	1.0070	.99769	4.9723

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.659	1.0143	.49205	-.00091	.50236	1.0223	-.02086	.50848	.50560	.49533
Stddev	.026	.0138	.00072	.00076	.00115	.0093	.03830	.00041	.00538	.00297
%RSD	.24409	1.3599	.14600	84.062	.22809	.90814	183.63	.08142	1.0632	.59950

#1	10.677	1.0045	.49255	-.00037	.50155	1.0158	-.04793	.50878	.50940	.49323
#2	10.641	1.0240	.49154	-.00144	.50317	1.0289	.00622	.50819	.50179	.49743

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3061.3	51782.	6029.9
Stddev	1.0	2.	15.3
%RSD	.03207	.00340	.25341

#1	3060.6	51784.	6019.1
#2	3062.0	51781.	6040.8

Sample Name: CCB Acquired: 5/30/2015 13:00:36 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0026	.00179	-0.00038	.00815	-0.00003	-0.00006	-0.00080	.00479	-0.00013	.00008	-0.00017	-0.00058	.00240
Stddev	.00033	.00024	.00072	.00064	.00002	.00007	.00004	.00846	.00010	.00002	.00012	.00002	.00042
%RSD	124.33	13.629	191.18	7.8992	78.542	113.22	4.9506	176.49	80.057	24.840	69.933	3.9079	17.349
#1	-0.0049	.00197	.00013	.00861	-0.00001	-0.00001	-0.00077	.01077	-0.00005	.00006	-0.00026	-0.00060	.00270
#2	-0.00003	.00162	-0.00089	.00770	-0.00004	-0.00011	-0.00082	-0.00119	-0.00020	.00009	-0.00009	-0.00056	.00211

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.04395	-0.00164	.00190	-0.00003	.00037	-0.01274	.00015	.00417	-0.00193	.00355	-0.00171	-0.00089	-0.01824
Stddev	.02002	.00060	.00118	.00010	.00014	.01335	.00012	.00195	.00066	.00441	.00040	.00038	.00860
%RSD	45.555	36.498	62.213	361.14	38.589	104.83	78.206	46.891	34.219	124.05	23.658	42.620	47.154
#1	-0.05811	-0.00206	.00106	.00004	.00027	-0.00330	.00024	.00555	-0.00147	.00667	-0.00142	-0.00062	-0.02432
#2	-0.02980	-0.00121	.00274	-0.00010	.00047	-0.02218	.00007	.00279	-0.00240	.00044	-0.00199	-0.00116	-0.01216

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.03902	.00134	.00014	.00194	-0.00001	.00112	-0.02074	-0.00053	-0.00007	-0.00197
Stddev	.01840	.00039	.00013	.00130	.00042	.00049	.00368	.00015	.00045	.00046
%RSD	47.154	29.290	91.125	66.784	7586.2	44.297	17.757	28.019	679.13	23.561
#1	-0.05204	.00106	.00023	.00102	-0.00030	.00077	-0.01814	-0.00043	.00025	-0.00230
#2	-0.02601	.00162	.00005	.00286	.00029	.00147	-0.02335	-0.00064	-0.00039	-0.00164

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3093.7	53215.	6124.7
Stddev	7.0	205.	35.2
%RSD	.22701	.38492	.57517
#1	3098.7	53359.	6099.7
#2	3088.7	53070.	6149.6

Sample Name: CCVL3301032 Acquired: 5/30/2015 13:02:59 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00962	.10975	.01223	.11065	.01001	.00086	.10251	.21271	.00521	.01053	.01069	.01548	.10436
Stddev	.00017	.00037	.00355	.00146	.00020	.00001	.00282	.00316	.00006	.00026	.00026	.00016	.00113
%RSD	1.7220	.33651	29.000	1.3182	2.0326	.75117	2.7482	1.4875	1.1662	2.4948	2.4087	1.0142	1.0808

#1	.00974	.10949	.01473	.10962	.01016	.00086	.10051	.21494	.00525	.01035	.01087	.01559	.10516
#2	.00951	.11001	.00972	.11168	.00987	.00085	.10450	.21047	.00516	.01072	.01051	.01537	.10357

Check ?	Chk Pass												
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.0242	.00896	.21470	.01059	.01969	1.0291	.04176	2.9692	.00810	-.00103	.00884	.01401	.47779
Stddev	.0706	.00081	.00258	.00004	.00024	.0226	.00016	.0376	.00029	.00140	.00274	.00008	.00575
%RSD	2.3347	9.0202	1.2028	.39910	1.2096	2.1943	.39444	1.2648	3.5543	136.43	30.946	.58047	1.2043

#1	3.0741	.00953	.21288	.01056	.01952	1.0450	.04164	2.9426	.00789	-.00004	.01077	.01395	.48186
#2	2.9742	.00839	.21653	.01062	.01986	1.0131	.04188	2.9957	.00830	-.00202	.00690	.01406	.47372

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0225	.10246	.01024	.01602	.01047	.01600	.07112	.01051	.02178	.01364
Stddev	.0123	.00133	.00004	.00142	.00019	.00076	.00376	.00042	.00004	.00327
%RSD	1.2043	1.3017	.40270	8.8738	1.8376	4.7243	5.2833	3.9944	.18672	24.002

#1	1.0312	.10152	.01027	.01502	.01033	.01546	.06846	.01021	.02175	.01595
#2	1.0138	.10341	.01021	.01703	.01060	.01653	.07377	.01081	.02181	.01132

Check ?	Chk Pass									
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3094.1	52901.	6032.1
Stddev	8.5	151.	21.1
%RSD	.27580	.28630	.35048

#1	3088.1	52793.	6047.0
#2	3100.1	53008.	6017.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0082	.01696	-0.00105	.01858	.00076	-0.00025	-0.00048	F.22746	-0.00039
Stddev	.00007	.00004	.00014	.00037	.00057	.00011	.00010	.00219	.00000
%RSD	8.2445	.24863	12.955	1.9888	74.062	46.225	20.888	.96433	1.0530

#1	-0.00077	.01698	-0.00095	.01884	.00116	-0.00033	-0.00055	.22901	-0.00039
#2	-0.00087	.01693	-0.00115	.01832	.00036	-0.00017	-0.00041	.22591	-0.00039

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit								.20000	
Low Limit								-.20000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00005	.00009	.00117	.02727	-0.01619	-0.00118	.09217	.00078	.00053
Stddev	.00028	.00026	.00026	.00069	.02508	.00002	.00049	.00005	.00050
%RSD	521.83	294.50	21.872	2.5382	154.97	1.8201	.53697	5.8797	94.783

#1	-0.00014	.00027	.00135	.02776	.00155	-0.00119	.09182	.00081	.00089
#2	.00025	-.00010	.00099	.02678	-.03392	-0.00116	.09252	.00075	.00018

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.11791	-0.00002	.01710	-0.00163	.00561	-0.00118	.00223	.05018	.10739
Stddev	.00524	.00007	.00170	.00192	.00383	.00380	.00436	.00360	.00770
%RSD	4.4457	413.81	9.9344	117.47	68.290	322.91	194.94	7.1723	7.1723

#1	.11420	.00003	.01830	-.00299	.00290	.00151	.00532	.04764	.10195
#2	.12162	-.00006	.01590	-.00028	.00832	-.00386	-.00085	.05273	.11284

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00831	.00056	.00060	.00025	-0.00124	.01836	.00000	.00290	.00057
Stddev	.00044	.00006	.00169	.00000	.00302	.01438	.0001	.00007	.00049
%RSD	5.2961	10.866	279.65	.64424	243.20	78.321	5567.3	2.5660	85.916

#1	.00800	.00060	.00180	.00025	.00089	.00819	-0.00011	.00284	.00022
#2	.00862	.00052	-.00059	.00026	-.00338	.02853	.00010	.00295	.00091

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3150.2	54143.	6150.6
Stddev	5.7	106.	8.0
%RSD	.18002	.19519	.13019

#1	3146.2	54068.	6144.9
#2	3154.2	54217.	6156.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00539	.07626	.02432	.05347	.00382	.00097	.01879	.71548	.00129
Stddev	.00018	.00007	.00007	.00031	.00024	.00004	.00142	.00131	.00003
%RSD	3.4262	.09145	.29112	.58718	6.1983	4.0887	7.5580	.18316	2.5269

#1	.00552	.07621	.02427	.05370	.00399	.00094	.01779	.71641	.00127
#2	.00526	.07631	.02437	.05325	.00366	.00100	.01979	.71455	.00131

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00414	.00225	.00907	.16866	1.5817	.00971	.22810	.00459	.00887
Stddev	.00012	.00024	.00011	.00058	.0200	.00264	.00084	.00002	.00042
%RSD	2.9132	10.812	1.2136	.34442	1.2636	27.217	.36728	.35063	4.7033

#1	.00406	.00208	.00900	.16825	1.5676	.01158	.22869	.00458	.00858
#2	.00423	.00243	.00915	.16907	1.5959	.00784	.22750	.00460	.00917

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0952	.00464	.07280	.01063	.14943	.01409	.03138	.22482	.48112
Stddev	.0027	.00027	.00046	.00329	.00035	.00088	.00000	.00927	.01983
%RSD	.12843	5.7480	.62762	30.981	.23729	6.2306	.00611	4.1226	4.1226

#1	2.0933	.00483	.07312	.00830	.14918	.01471	.03138	.21827	.46709
#2	2.0971	.00445	.07247	.01296	.14968	.01347	.03138	.23138	.49515

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04402	.00158	.01616	.00522	.02525	-.01876	.00259	.01788	.01124
Stddev	.00102	.00003	.00228	.00000	.00149	.02260	.00049	.00120	.00011
%RSD	2.3262	2.0382	14.119	.04817	5.8970	120.52	18.909	6.6879	1.0022

#1	.04475	.00160	.01455	.00522	.02630	-.00277	.00224	.01703	.01132
#2	.04330	.00156	.01778	.00521	.02420	-.03474	.00294	.01873	.01116

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3132.7	53463.	6172.8
Stddev	.6	30.	11.4
%RSD	.01783	.05695	.18491

#1	3133.1	53485.	6180.8
#2	3132.3	53442.	6164.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00615	.07676	.02640	.05269	.00381	.00096	.01933	.68455	.00136
Stddev	.00027	.00068	.00317	.00005	.00027	.00004	.00051	.00944	.00015
%RSD	4.3368	.88923	11.993	.09012	7.0967	3.7478	2.6359	1.3797	10.876

#1	.00634	.07724	.02864	.05272	.00362	.00099	.01969	.67787	.00125
#2	.00596	.07628	.02416	.05266	.00400	.00094	.01897	.69123	.00146

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00372	.00240	.00854	.16223	1.5553	.01019	.21707	.00422	.00918
Stddev	.00001	.00006	.00023	.00225	.0493	.00074	.00018	.00001	.00027
%RSD	.30221	2.4697	2.7151	1.3864	3.1696	7.2959	.08062	.30767	2.9191

#1	.00373	.00236	.00837	.16064	1.5204	.01072	.21720	.00421	.00899
#2	.00371	.00244	.00870	.16382	1.5902	.00966	.21695	.00423	.00937

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0763	.00433	.07438	.00949	.14796	.01165	.03277	.22224	.47559
Stddev	.0418	.00024	.00089	.00127	.00593	.00131	.00360	.00448	.00959
%RSD	2.0117	5.5992	1.1968	13.376	4.0088	11.279	10.973	2.0168	2.0168

#1	2.0467	.00450	.07375	.01038	.14376	.01072	.03531	.22541	.48238
#2	2.1058	.00416	.07501	.00859	.15215	.01258	.03023	.21907	.46881

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04519	.00153	.01558	.00504	.02541	-.00318	.00297	.01813	.01159
Stddev	.00279	.00017	.00030	.00011	.00120	.00498	.00031	.00072	.00012
%RSD	6.1728	10.979	1.9348	2.1819	4.7338	156.41	10.435	3.9651	1.0096

#1	.04321	.00142	.01579	.00496	.02456	.00034	.00275	.01762	.01167
#2	.04716	.00165	.01537	.00512	.02626	-.00670	.00319	.01864	.01151

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3108.3	53492.	6179.6
Stddev	5.2	127.	37.6
%RSD	.16815	.23723	.60834

#1	3112.0	53403.	6206.2
#2	3104.6	53582.	6153.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01396	.52948	.02563	.11470	.02052	.00446	-.00235	1.2163	.00485
Stddev	.00005	.00091	.00292	.00032	.00014	.00007	.00310	.0164	.00006
%RSD	.36687	.17095	11.397	.27560	.69018	1.5854	132.08	1.3498	1.3161

#1	.01392	.53012	.02356	.11447	.02042	.00451	-.00016	1.2279	.00481
#2	.01399	.52884	.02769	.11492	.02062	.00441	-.00454	1.2047	.00490

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00990	.03591	.05002	.80537	2.9341	.01296	.38177	.04528	.02397
Stddev	.00042	.00017	.00197	.00919	.0811	.00054	.00976	.00103	.00057
%RSD	4.2321	.47265	3.9381	1.1409	2.7644	4.1433	2.5552	2.2760	2.3753

#1	.01020	.03579	.05141	.81187	2.9914	.01334	.38867	.04601	.02357
#2	.00961	.03603	.04862	.79888	2.8767	.01258	.37487	.04455	.02438

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.8810	.03982	.50105	.00739	.00809	.01713	.02695	.99638	2.1322
Stddev	.0074	.00014	.00304	.00108	.00556	.00209	.00459	.02638	.0564
%RSD	.15098	.36203	.60733	14.610	68.681	12.223	17.028	2.6471	2.6471

#1	4.8863	.03972	.49890	.00663	.01202	.01565	.03020	1.0150	2.1722
#2	4.8758	.03993	.50320	.00815	.00416	.01861	.02371	.97773	2.0923

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.11009	.01022	.14431	.00942	.02876	.00120	.01897	.08164	.02392
Stddev	.00092	.00013	.00265	.00002	.00209	.01392	.00003	.00058	.00093
%RSD	.83993	1.3070	1.8348	.25223	7.2562	1163.4	.15212	.70864	3.8901

#1	.10944	.01032	.14618	.00943	.02728	-.00865	.01899	.08205	.02458
#2	.11075	.01013	.14244	.00940	.03023	.01104	.01895	.08123	.02326

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3093.6	53652.	6171.2
Stddev	4.5	533.	2.1
%RSD	.14414	.99286	.03468

#1	3096.7	53275.	6169.7
#2	3090.4	54028.	6172.7

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00761	49.504	.00024	.00375	.00035	-.00016	1.0137	.03436	-.00071	-.00044	.00055
Stddev	.00031	.493	.00122	.00123	.00010	.00007	.0006	.00114	.00013	.00003	.00026
%RSD	4.1405	.99562	499.12	32.929	27.196	46.740	.05650	3.3219	18.553	7.6591	47.055

#1	-0.00739	49.853	.00111	.00462	.00042	-0.00021	1.0133	.03517	-0.00062	-0.00046	.00073
#2	-0.00783	49.156	-0.00062	.00287	.00028	-0.00011	1.0141	.03356	-0.00080	-0.00042	.00037

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00100	50.037	-.07384	.00083	.03612	-.00145	-.00070	245.53	.00243	.00551	-.00114
Stddev	.00034	.530	.01016	.00105	.00499	.00008	.00007	2.55	.00039	.00229	.00002
%RSD	33.687	1.0597	13.756	127.44	13.827	5.4812	9.3686	1.0381	15.995	41.550	1.5254

#1	.00076	50.412	-.08103	.00157	.03965	-0.00139	-0.00065	247.33	.00216	.00389	-.00113
#2	.00124	49.662	-.06666	.00008	.03259	-0.00151	-0.00075	243.73	.00271	.00713	-.00116

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.1967	-.01197	.00771	-.04983	-.10664	-.00178	.00031	4.9912	-.01378	.00222	W 10.518
Stddev	.1622	.00268	.00093	.01272	.02722	.00130	.00019	.0253	.00057	.00162	.030
%RSD	3.1217	22.420	12.057	25.524	25.524	72.981	61.268	.50714	4.1177	73.143	.28218

#1	5.0820	-.01007	.00837	-.04084	-.08739	-0.00086	.00017	4.9733	-.01338	.00107	10.497
#2	5.3114	-.01387	.00705	-.05882	-.12588	-0.00270	.00044	5.0091	-.01418	.00337	10.539

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value											10.000
Range											5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00300	-.00056	-.12556
Stddev	.00068	.00061	.00673
%RSD	22.722	109.45	5.3583

#1	.00252	-.00013	-.12080
#2	.00349	-0.00099	-.13032

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2963.2	49660.	6018.9
Stddev	7.8	333.	29.8
%RSD	.26387	.67063	.49506

#1	2968.8	49896.	5997.8
#2	2957.7	49425.	6040.0

Sample Name: CCV-3296664 Acquired: 5/30/2015 13:18:51 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50481	.53816	.99950	.51078	.49049	.48981	-.00143	5.0136	.50578	.50888	.50813	.50557	2.5143
Stddev	.00340	.00737	.00298	.00028	.01070	.01186	.00034	.1166	.00629	.00090	.00554	.00477	.0637
%RSD	.67350	1.3687	.29769	.05402	2.1818	2.4221	23.787	2.3260	1.2437	.17686	1.0908	.94437	2.5344

#1	.50721	.54337	.99739	.51058	.48292	.48142	-.00119	4.9312	.51023	.50952	.50421	.50894	2.4692
#2	.50240	.53295	1.0016	.51097	.49806	.49820	-.00167	5.0961	.50133	.50824	.51205	.50219	2.5594

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.191	.98723	20.242	.50927	.49749	5.0378	.50340	1.0105	1.0014	.00396	.99836	.98383	4.9477
Stddev	1.185	.02088	.231	.00589	.00230	.1160	.00014	.0043	.0041	.00309	.00355	.00724	.1194
%RSD	2.4087	2.1149	1.1396	1.1564	.46320	2.3026	.02817	.42650	.41079	78.004	.35563	.73546	2.4130

#1	48.353	.97247	20.405	.51343	.49912	4.9558	.50350	1.0074	1.0043	.00615	1.0009	.98894	4.8632
#2	50.029	1.0020	20.079	.50510	.49586	5.1198	.50330	1.0135	.99846	.00178	.99585	.97871	5.0321

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.588	1.0074	.49050	.00041	.50562	1.0144	-.02067	.51623	.51803	.49675
Stddev	.255	.0020	.01064	.00428	.00598	.0027	.02702	.00494	.00207	.01182
%RSD	2.4130	.20076	2.1692	1041.3	1.1823	.26383	130.71	.95777	.39967	2.3797

#1	10.407	1.0088	.48298	.00344	.50985	1.0163	-.03977	.51973	.51949	.48839
#2	10.769	1.0060	.49802	-.00262	.50139	1.0125	-.00157	.51274	.51657	.50511

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3014.3	51104.	6006.0
Stddev	30.3	295.	135.4
%RSD	1.0040	.57802	2.2546

#1	2992.9	50895.	6101.8
#2	3035.7	51313.	5910.3

Sample Name: CCB Acquired: 5/30/2015 13:21:21 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0036	.00057	.00251	.00298	-0.00013	-0.00015	-0.00093	.00191	-0.00027	.00007	.00015	-0.00050	.00155
Stddev	.00018	.00004	.00353	.00064	.00005	.00006	.00053	.00113	.00010	.00007	.00018	.00038	.00003
%RSD	49.251	6.5423	140.87	21.364	37.556	36.770	56.698	59.173	36.883	109.02	124.27	75.622	1.7696
#1	-0.00049	.00055	.00001	.00343	-0.00009	-0.00011	-0.00131	.00111	-0.00034	.00012	.00002	-0.00077	.00153
#2	-0.00024	.00060	.00501	.00253	-0.00016	-0.00019	-0.00056	.00271	-0.00020	.00002	.00028	-0.00023	.00157

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.03447	-0.00218	-0.00131	.00000	.00021	.00706	-0.00033	.00052	-0.00029	-0.00041	-0.00083	-0.00077	-0.01838
Stddev	.03339	.00027	.00214	.00001	.00029	.01184	.00036	.00119	.00104	.00622	.00023	.00159	.01024
%RSD	96.849	12.590	163.85	351.20	134.76	167.66	108.80	228.20	360.58	1522.2	27.233	205.65	55.694
#1	-0.01087	-0.00198	-0.00282	.00001	.00042	.01544	-0.00008	-0.00032	.00045	.00399	-0.00067	-0.00190	-0.01114
#2	-0.05808	-0.00237	.00021	-0.00001	.00001	-0.00131	-0.00059	.00136	-0.00102	-0.00481	-0.00099	.00035	-0.02562

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.03933	.00040	.00011	.00278	.00023	.00130	-0.04041	.00023	.00062	-0.00102
Stddev	.02191	.00071	.00010	.00129	.00017	.00303	.02341	.00034	.00026	.00121
%RSD	55.694	178.28	95.227	46.521	72.855	233.92	57.933	151.39	42.220	119.53
#1	-0.02384	-0.00010	.00004	.00370	.00011	-0.00085	-0.05696	-0.00002	.00081	-0.00016
#2	-0.05482	.00090	.00018	.00187	.00035	.00344	-0.02386	.00047	.00044	-0.00187

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3053.0	52357.	5996.2
Stddev	12.1	58.	1.2
%RSD	.39486	.11054	.01944
#1	3044.5	52398.	5997.0
#2	3061.5	52316.	5995.3

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00956	.10878	.01378	.10561	.01016	.00086	.10516	.20768	.00506	.01080	.01062	.01550
Stddev	.00008	.00025	.00143	.00116	.00012	.00015	.00207	.00221	.00001	.00004	.00005	.00108
%RSD	.81347	.23303	10.391	1.1003	1.2056	17.470	1.9728	1.0618	.12650	.40263	.45862	6.9716

#1	.00961	.10896	.01276	.10479	.01007	.00076	.10369	.20924	.00506	.01077	.01066	.01626
#2	.00950	.10860	.01479	.10643	.01025	.00097	.10663	.20612	.00505	.01083	.01059	.01473

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10001	3.0186	.00977	.20991	.01065	.02043	1.0365	.04235	2.9801	.00768	.00325	F .00660
Stddev	.00039	.0453	.00030	.00017	.00015	.00011	.0039	.00005	.0147	.00200	.00352	.00154
%RSD	.39249	1.5001	3.0243	.07902	1.3740	.55995	.37382	.11234	.49221	26.078	108.36	23.338

#1	.10029	3.0506	.00997	.21003	.01075	.02035	1.0392	.04239	2.9697	.00626	.00574	.00769
#2	.09974	2.9866	.00956	.20979	.01054	.02051	1.0338	.04232	2.9905	.00909	.00076	.00551

Check ?	Chk Pass	None	Chk Fail									
Value												.01000
Range												-30.000%

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01447	4.7889	1.0248	.10389	.01031	.01764	.01049	.01629	F .03575	.00994	.02085	.01376
Stddev	.00029	.00311	.0067	.00020	.00016	.00178	.00017	.00421	.00059	.00014	.00128	.00213
%RSD	2.0158	.65036	.65036	.18958	1.5124	10.106	1.6420	25.876	1.6606	1.3892	6.1254	15.458

#1	.01426	.48109	1.0295	.10375	.01042	.01638	.01037	.01331	.03533	.00984	.01994	.01526
#2	.01467	.47669	1.0201	.10403	.01020	.01890	.01061	.01926	.03617	.01004	.02175	.01225

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass							
Value									.06000			
Range									-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3096.3	52975.	6185.0
Stddev	12.7	1032.	70.2
%RSD	.41030	1.9474	1.1356

#1	3087.3	52246.	6135.4
#2	3105.3	53705.	6234.7

Sample Name: AI-500 Acquired: 5/30/2015 13:26:24 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0063	W 511.70	.00806	-0.00115	-0.00033	-0.00017	-0.00186	.00605	-0.00022
Stddev	.00022	1.56	.00095	.00011	.00029	.00003	.00215	.00406	.00016
%RSD	35.387	.30535	11.746	9.8259	87.288	19.668	115.70	67.138	73.709

#1	-0.00048	510.59	.00739	-0.00107	-0.00013	-0.00019	-0.00034	.00892	-0.00011
#2	-0.00079	512.80	.00873	-0.00123	-0.00054	-0.00014	-0.00339	.00318	-0.00033

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		500.00							
Low Limit		3.2000							

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00013	.00087	.00059	.00170	-0.07151	.00003	.00330	.00056	-0.00142
Stddev	.00032	.00035	.00033	.00076	.03149	.00031	.00761	.00002	.00037
%RSD	253.33	40.186	55.138	44.297	44.031	1017.7	230.79	2.6771	26.217

#1	-0.00010	.00112	.00082	.00224	-0.04925	.00025	.00868	.00057	-0.00116
#2	.00035	.00062	.00036	.00117	-0.09378	-0.00019	-0.00208	.00055	-0.00169

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.01159	-0.00125	.00031	-0.00151	-0.05436	-0.00233	.00720	-0.03264	-0.06986
Stddev	.00144	.00081	.00019	.00230	.00338	.00376	.00335	.00161	.00344
%RSD	12.414	64.544	61.719	151.94	6.2202	161.55	46.497	4.9265	4.9265

#1	-0.01260	-0.00182	.00018	-0.00314	-0.05676	.00033	.00483	-0.03378	-0.07229
#2	-0.01057	-0.00068	.00045	.00011	-0.05197	-0.00499	.00957	-0.03151	-0.06742

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00026	.00014	.00040	.00058	.00434	-0.00816	-0.00026	.00062	.00145
Stddev	.00273	.00002	.00080	.00037	.00198	.00043	.00001	.00038	.00074
%RSD	1036.5	11.372	201.92	62.967	45.720	5.2101	4.8435	62.356	51.064

#1	-0.00166	.00015	.00096	.00032	.00294	-0.00786	-0.00027	.00089	.00198
#2	.00219	.00013	-0.00017	.00084	.00574	-0.00846	-0.00026	.00034	.00093

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3057.3	50202.	6270.6
Stddev	3.6	262.	35.2
%RSD	.11669	.52259	.56157

#1	3059.8	50387.	6295.5
#2	3054.8	50016.	6245.7

Sample Name: Fe-200 Acquired: 5/30/2015 13:29:25 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00007	F -.10542	.00134	-.00134	-.00022	-.00020	-.00461	.00326	-.00016
Stddev	.00006	.00219	.00228	.00132	.00021	.00012	.00308	.00041	.00012
%RSD	83.541	2.0791	170.63	98.321	95.634	58.224	66.660	12.682	76.113

#1	.00003	-.10387	.00295	-.00228	-.00007	-.00012	-.00244	.00355	-.00008
#2	.00011	-.10697	-.00028	-.00041	-.00036	-.00029	-.00679	.00297	-.00025

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		3.2000							
Low Limit		-.10000							

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00036	.00082	-.00085	196.41	-.14340	-.00288	-.00205	.00229	-.00103
Stddev	.00001	.00023	.00040	.25	.01791	.00127	.00662	.00006	.00017
%RSD	1.9923	28.000	47.082	.12805	12.493	44.111	322.59	2.7269	16.395

#1	.00036	.00065	-.00057	196.59	-.13073	-.00199	.00263	.00234	-.00115
#2	.00035	.00098	-.00114	196.23	-.15606	-.00378	-.00673	.00225	-.00091

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01825	.00576	.00144	-.00123	-.00784	W -.01847	.00002	-.01406	-.03010
Stddev	.00275	.00017	.00330	.00046	.00091	.00070	.00173	.00464	.00993
%RSD	15.068	2.9946	228.78	37.526	11.561	3.7680	10572.	33.002	33.002

#1	-.01630	.00564	-.00089	-.00156	-.00848	-.01896	.00124	-.01735	-.03712
#2	-.02019	.00588	.00378	-.00090	-.00720	-.01797	-.00121	-.01078	-.02307

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						2.0000			
Low Limit						-.01000			

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00198	.00005	.02521	-.00034	.00350	F -.17466	.00018	-.00153	-.00528
Stddev	.00004	.00006	.00469	.00029	.00157	.03524	.00033	.00013	.00017
%RSD	1.9533	105.82	18.583	84.873	44.831	20.179	180.73	8.3002	3.1907

#1	.00201	.00001	.02853	-.00054	.00461	-.19958	-.00005	-.00162	-.00540
#2	.00195	.00009	.02190	-.00013	.00239	-.14974	.00041	-.00144	-.00516

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass				
High Limit						50.000			
Low Limit						-.10000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3107.1	54093.	6361.1
Stddev	8.7	348.	3.8
%RSD	.27840	.64316	.06022

#1	3101.0	53847.	6358.4
#2	3113.2	54339.	6363.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0037	.00949	-0.00136	.00074	.00022	-0.0017	.00194	.03733	-0.00032
Stddev	.00066	.00082	.00033	.00016	.00011	.00007	.00046	.00054	.00014
%RSD	178.00	8.6541	24.566	21.765	51.957	42.301	23.428	1.4522	43.636

#1	.00010	.01007	-.00159	.00063	.00014	-.00012	.00226	.03772	-.00042
#2	-.00083	.00891	-.00112	.00086	.00029	-.00022	.00162	.03695	-.00022

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	-0.00021	-0.00060	.02504	-0.07619	-0.00128	.00789	.00012	.00019
Stddev	.00022	.00007	.00030	.00762	.02509	.00064	.00068	.00001	.00012
%RSD	1033.3	32.527	49.257	30.427	32.935	50.229	8.6756	6.6726	62.181

#1	.00018	-.00026	-.00081	.03043	-.05845	-.00174	.00837	.00012	.00011
#2	-.00014	-.00016	-.00039	.01965	-.09393	-.00083	.00741	.00013	.00027

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10933	-0.00004	.00045	-0.00069	.04291	-0.00314	.00064	-.02261	-.04838
Stddev	.00043	.00022	.00475	.00003	.00262	.00318	.00323	.00642	.01375
%RSD	.39081	513.56	1046.2	3.9535	6.0962	101.22	507.16	28.416	28.416

#1	.10963	-.00020	-.00291	-.00067	.04106	-.00089	-.00165	-.01807	-.03866
#2	.10902	.00011	.00381	-.00071	.04476	-.00539	.00292	-.02715	-.05811

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00015	.00013	.00238	.00032	.00001	-.04518	-.00016	.00355	-.00098
Stddev	.00016	.00005	.00012	.00002	.00009	.00169	.00030	.00029	.00039
%RSD	101.14	36.475	4.9818	5.9511	641.45	3.7489	188.49	8.0408	39.204

#1	.00004	.00016	.00229	.00034	-.00005	-.04399	.00005	.00335	-.00071
#2	.00026	.00010	.00246	.00031	.00007	-.04638	-.00037	.00375	-.00126

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3172.9	54981.	6380.5
Stddev	6.4	100.	4.5
%RSD	.20219	.18189	.07014

#1	3177.4	55052.	6377.3
#2	3168.4	54910.	6383.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0090	.53393	.00090	.00550	.01563	.00004	.00100	2.5175	-0.0031
Stddev	.00006	.00401	.00060	.00041	.00011	.00009	.00031	.0452	.00003
%RSD	6.8715	.75093	67.289	7.4852	.71383	234.15	31.330	1.7961	10.581

#1	-0.0085	.53109	.00133	.00521	.01555	-0.0003	.00078	2.4855	-0.0033
#2	-0.0094	.53676	.00047	.00580	.01570	.00011	.00122	2.5494	-0.0029

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00027	.00070	.00038	.75118	.07538	-0.00081	.49515	.01490	-0.0010
Stddev	.00009	.00036	.00007	.01963	.02194	.00032	.00747	.00039	.00001
%RSD	32.744	51.004	18.258	2.6136	29.099	39.870	1.5078	2.6495	14.351

#1	.00033	.00096	.00043	.73730	.05987	-0.0058	.48987	.01462	-0.0011
#2	.00021	.00045	.00033	.76506	.09089	-0.0104	.50043	.01518	-0.0009

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.58375	.00092	.01803	.00022	.38501	.00014	.00227	1.1012	2.3566
Stddev	.02063	.00035	.00309	.00069	.00332	.00094	.00587	.0372	.0795
%RSD	3.5347	37.653	17.158	314.51	.86308	676.51	259.09	3.3738	3.3738

#1	.56916	.00117	.02021	.00070	.38266	-0.0053	.00642	1.0750	2.3004
#2	.59834	.00068	.01584	-0.0027	.38736	.00081	-0.0189	1.1275	2.4128

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00032	.01686	.00385	.00525	-0.0153	-0.02557	.00200	.00479	-0.0026
Stddev	.00004	.00041	.00092	.00004	.00097	.01663	.00049	.00058	.00062
%RSD	11.571	2.4164	23.962	.68034	63.233	65.039	24.587	12.152	234.18

#1	.00029	.01657	.00450	.00522	-0.0085	-0.03733	.00165	.00438	.00017
#2	.00034	.01715	.00320	.00528	-0.0221	-0.01381	.00235	.00521	-0.0070

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3157.2	53940.	6412.0
Stddev	6.7	1159.	19.8
%RSD	.21124	2.1493	.30834

#1	3161.9	54760.	6426.0
#2	3152.5	53121.	6398.1

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00000	12.861	.00215	.01081	.35202	.00161	.00161	16.376	.00038
Stddev	.00049	.092	.00119	.00019	.00448	.00011	.00017	.186	.00004
%RSD	10904.	.71492	55.251	1.7351	1.2728	6.8249	10.708	1.1384	9.2333

#1	.00035	12.926	.00299	.01095	.35519	.00169	.00149	16.508	.00035
#2	-.00034	12.796	.00131	.01068	.34885	.00153	.00174	16.244	.00040

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00567	.00860	.01752	9.1134	1.4928	.00061	3.3022	.42213	.00007
Stddev	.00008	.00008	.00028	.0828	.0115	.00081	.0349	.00440	.00014
%RSD	1.3957	.93297	1.5763	.90849	.76688	132.41	1.0560	1.0425	201.58

#1	.00562	.00855	.01733	9.1719	1.5009	.00004	3.2776	.41902	.00017
#2	.00573	.00866	.01772	9.0548	1.4847	.00119	3.3269	.42524	-.00003

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.463	.00789	.27225	.01700	.66716	-.00541	-.00159	11.045	23.635
Stddev	.499	.00003	.00447	.00123	.00028	.00488	.00421	.235	.503
%RSD	1.9582	.36046	1.6403	7.2279	.04204	90.157	265.13	2.1287	2.1287

#1	25.816	.00791	.27541	.01613	.66697	-.00196	-.00457	11.211	23.991
#2	25.110	.00787	.26909	.01787	.66736	-.00886	.00139	10.878	23.280

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00141	.12775	.00306	.02668	-.00132	-.02217	.01842	.02964	-.00178
Stddev	.00077	.00133	.00147	.00017	.00313	.00117	.00013	.00140	.00194
%RSD	54.897	1.0425	48.122	.63641	238.00	5.2590	.69715	4.7157	109.08

#1	.00086	.12869	.00410	.02680	.00090	-.02134	.01851	.03063	-.00314
#2	.00195	.12680	.00202	.02656	-.00353	-.02299	.01833	.02865	-.00041

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3170.3	54339.	6447.5
Stddev	6.2	203.	54.0
%RSD	.19408	.37406	.83791

#1	3165.9	54483.	6409.3
#2	3174.6	54196.	6485.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.13473	-.00153	.00200	.00425	-.00017	.00118	3.0323	-.00022
Stddev	.00016	.00179	.00068	.00020	.00018	.00002	.00016	.0386	.00012
%RSD	681.89	1.3300	44.473	10.049	4.3221	10.579	13.457	1.2731	55.768

#1	.00014	.13600	-.00105	.00215	.00412	-.00016	.00129	3.0596	-.00031
#2	-.00009	.13347	-.00202	.00186	.00438	-.00019	.00106	3.0050	-.00013

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00027	.00046	.00025	.21625	.08910	-.00231	.86353	.00194	.00020
Stddev	.00045	.00014	.00076	.00159	.02964	.00039	.01229	.00002	.00035
%RSD	168.12	30.448	310.24	.73303	33.264	16.795	1.4232	.97513	179.64

#1	-.00005	.00056	-.00029	.21737	.06814	-.00203	.85484	.00195	.00045
#2	.00059	.00036	.00078	.21513	.11006	-.00258	.87222	.00192	-.00005

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.6699	-.00015	.00560	-.00101	1.0943	-.00250	.00175	.57293	1.2261
Stddev	.0909	.00009	.00040	.00020	.0128	.00260	.00213	.01784	.0382
%RSD	3.4042	62.405	7.2104	19.785	1.1716	104.20	121.96	3.1137	3.1137

#1	2.7342	-.00008	.00532	-.00087	1.1033	-.00066	.00024	.58554	1.2531
#2	2.6057	-.00021	.00589	-.00115	1.0852	-.00434	.00326	.56031	1.1991

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00098	.03699	.00204	.01272	-.00176	-.01968	-.00008	.00020	.00026
Stddev	.00046	.00080	.00051	.00044	.00050	.00053	.00044	.00026	.00074
%RSD	47.014	2.1635	24.837	3.4877	28.126	2.7174	529.74	132.35	277.98

#1	.00130	.03756	.00168	.01303	-.00211	-.02006	.00023	.00039	-.00026
#2	.00065	.03643	.00239	.01241	-.00141	-.01930	-.00040	.00001	.00079

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3150.5	54086.	6342.1
Stddev	8.3	94.	6.6
%RSD	.26481	.17410	.10356

#1	3144.6	54153.	6337.4
#2	3156.4	54020.	6346.7

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0039	5.5259	.00335	.00591	.12472	.00052	.00191	4.7103	-0.0010
Stddev	.00005	.0289	.00029	.00001	.00024	.00009	.00163	.0063	.00006
%RSD	13.460	.52237	8.7475	.13765	.19056	17.703	85.264	.13260	61.435

#1	-0.0035	5.5055	.00315	.00591	.12455	.00045	.00076	4.7059	-0.0006
#2	-0.0042	5.5463	.00356	.00592	.12489	.00058	.00306	4.7147	-0.0014

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00161	.00474	.02598	3.7015	1.0145	.00161	1.2671	.04572	.00138
Stddev	.00014	.00033	.00049	.0202	.0429	.00076	.0040	.00004	.00026
%RSD	8.5679	6.8622	1.8951	.54538	4.2287	47.115	.31726	.09156	18.607

#1	.00151	.00497	.02563	3.6872	1.0448	.00107	1.2643	.04575	.00156
#2	.00171	.00451	.02632	3.7158	.98413	.00214	1.2700	.04569	.00120

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.155	.00370	.05169	.00914	.94581	-.00417	.00176	6.4188	13.736
Stddev	.286	.00030	.00499	.00031	.00625	.00133	.00605	.0112	.024
%RSD	2.0220	7.9980	9.6563	3.3440	.66090	31.814	342.75	.17457	.17457

#1	13.953	.00390	.05522	.00935	.95023	-.00511	-.00251	6.4267	13.753
#2	14.357	.00349	.04816	.00892	.94139	-.00323	.00604	6.4108	13.719

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00125	.07706	.00480	.01991	-.00057	-.03695	.00428	.01426	.00083
Stddev	.00146	.00047	.00148	.00019	.00025	.01407	.00013	.00040	.00064
%RSD	116.94	.61082	30.889	.96270	43.670	38.074	3.0599	2.7725	77.037

#1	.00022	.07739	.00375	.01977	-.00040	-.02700	.00419	.01454	.00128
#2	.00228	.07673	.00584	.02004	-.00075	-.04690	.00438	.01398	.00038

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3153.9	54099.	6426.5
Stddev	9.6	51.	16.4
%RSD	.30310	.09362	.25480

#1	3160.6	54134.	6438.1
#2	3147.1	54063.	6415.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0068	.05540	-0.00219	.00262	.00519	-0.0013	.00112	2.3381	-0.0023
Stddev	.00042	.00100	.00171	.00036	.00015	.00011	.00006	.0089	.00008
%RSD	62.103	1.8118	78.069	13.689	2.8083	83.329	5.7105	.38290	34.102

#1	-0.0038	.05469	-0.00339	.00287	.00508	-0.00021	.00116	2.3318	-0.0029
#2	-0.00098	.05611	-0.00098	.00237	.00529	-0.00005	.00107	2.3445	-0.0018

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	.00086	.00109	.06606	.07138	-0.00334	.26181	.00191	.00065
Stddev	.00016	.00006	.00002	.00037	.02439	.00065	.00460	.00006	.00050
%RSD	101.12	7.2351	1.7448	.56550	34.173	19.393	1.7578	2.8872	76.700

#1	.00027	.00091	.00111	.06633	.05413	-0.00380	.25856	.00187	.00030
#2	.00005	.00082	.00108	.06580	.08863	-0.00289	.26506	.00195	.00100

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.2369	.00056	.00589	.00015	.66881	-0.00198	.00087	.69291	1.4828
Stddev	.0104	.00005	.00403	.00001	.01763	.00389	.00349	.00043	.0009
%RSD	.32143	8.7355	68.430	6.4398	2.6353	196.31	403.08	.06177	.06177

#1	3.2296	.00052	.00304	.00014	.65635	-0.00474	.00333	.69321	1.4835
#2	3.2443	.00059	.00873	.00016	.68128	.00077	-0.00160	.69260	1.4822

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00113	.01253	.00239	.00047	.00098	-0.01536	.00012	.00971	-0.0091
Stddev	.00082	.00008	.00172	.00006	.00091	.01138	.00013	.00028	.00036
%RSD	72.499	.64380	71.828	12.821	93.134	74.119	115.56	2.9288	39.519

#1	.00171	.01248	.00118	.00043	.00162	-0.02341	.00021	.00991	-0.0066
#2	.00055	.01259	.00360	.00051	.00033	-0.00731	.00002	.00951	-0.0016

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3153.4	54122.	6398.9
Stddev	5.1	88.	36.7
%RSD	.16284	.16262	.57298

#1	3157.0	54185.	6424.8
#2	3149.8	54060.	6373.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00044	.01221	.00117	.00100	.00106	-0.00020	.00022	.48780	-0.00039
Stddev	.00009	.00068	.00018	.00083	.00043	.00004	.00196	.00077	.00030
%RSD	21.144	5.5587	15.517	82.782	40.107	19.240	876.12	.15748	77.318

#1	-0.00037	.01269	.00104	.00159	.00136	-0.00018	.00161	.48726	-0.00061
#2	-0.00051	.01173	.00130	.00042	.00076	-0.00023	-.00116	.48835	-0.00018

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	-0.00021	-0.00005	.01974	-0.05225	-0.00178	.05550	.00039	.00014
Stddev	.00026	.00005	.00040	.00148	.04585	.00102	.00310	.00003	.00025
%RSD	162.72	22.345	852.81	7.4784	87.745	57.118	5.5764	8.5561	186.02

#1	-0.00002	-0.00025	.00023	.02078	-0.01983	-0.00250	.05769	.00041	.00031
#2	.00034	-0.00018	-0.00033	.01869	-.08467	-0.00106	.05332	.00037	-.00004

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.64099	-0.00053	.00216	-0.00187	.12935	-0.00377	.00297	.13689	.29294
Stddev	.01301	.00019	.00163	.00188	.00199	.00142	.00016	.00954	.02042
%RSD	2.0295	35.416	75.324	100.88	1.5388	37.654	5.5179	6.9695	6.9695

#1	.65019	-0.00067	.00101	-.00320	.13076	-0.00277	.00308	.14363	.30738
#2	.63179	-0.00040	.00331	-.00053	.12794	-0.00478	.00285	.13014	.27850

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00036	.00271	.00223	.00020	-0.00013	-0.02935	.00011	.00241	-0.00077
Stddev	.00031	.00006	.00279	.00036	.00074	.04712	.00016	.00039	.00010
%RSD	85.770	2.1103	125.01	181.25	579.65	160.55	141.42	16.134	12.479

#1	.00014	.00267	.00026	-.00006	.00040	.00397	.00000	.00214	-0.00084
#2	.00058	.00275	.00420	.00045	-0.00065	-0.06267	.00022	.00269	-0.00070

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3136.3	53954.	6305.2
Stddev	5.9	40.	20.4
%RSD	.18885	.07492	.32318

#1	3132.2	53925.	6290.8
#2	3140.5	53982.	6319.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0050	.04580	-0.0094	.00132	.00428	-0.0011	.00243	2.6718	-0.0006
Stddev	.00001	.00038	.00354	.00033	.00022	.00003	.00135	.0195	.00009
%RSD	2.0123	.83656	375.02	25.274	5.1305	30.545	55.371	.72876	161.10

#1	-0.0050	.04553	-0.00344	.00109	.00413	-0.0009	.00338	2.6580	.00001
#2	-0.0051	.04607	.00156	.00156	.00444	-0.00013	.00148	2.6855	-0.0012

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.00036	.00120	.06232	.05099	-0.00066	.27205	.00251	.00064
Stddev	.00020	.00023	.00013	.00154	.02772	.00105	.00117	.00016	.00003
%RSD	248.67	64.320	10.553	2.4703	54.362	157.46	.42897	6.5265	4.5683

#1	.00022	.00020	.00128	.06123	.03139	-0.00140	.27123	.00262	.00062
#2	-0.00006	.00053	.00111	.06341	.07059	.00008	.27288	.00239	.00067

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.2433	.00032	.00423	.00085	.70093	-0.00255	-0.00022	.70067	1.4994
Stddev	.0333	.00012	.00058	.00131	.00914	.00117	.00134	.00157	.0034
%RSD	1.0255	38.757	13.736	153.17	1.3034	45.867	605.18	.22395	.22395

#1	3.2198	.00023	.00464	-0.00007	.70739	-0.00338	-0.00117	.69956	1.4971
#2	3.2669	.00041	.00382	.00178	.69447	-0.00172	.00073	.70178	1.5018

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00064	.01389	.00192	.00065	-0.00094	-0.01837	-0.00057	.00232	.00136
Stddev	.00018	.00020	.00039	.00043	.00042	.02019	.00023	.00012	.00086
%RSD	28.590	1.4725	20.473	66.527	44.812	109.94	40.120	5.2823	62.994

#1	.00051	.01375	.00220	.00034	-0.00124	-0.00409	-0.00073	.00223	.00076
#2	.00076	.01404	.00164	.00095	-0.00064	-0.03265	-0.00041	.00241	.00197

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3149.0	54152.	6334.1
Stddev	1.7	12.	15.1
%RSD	.05408	.02308	.23819

#1	3150.2	54161.	6344.8
#2	3147.8	54143.	6323.4

Sample Name: CCVH-3294468 Acquired: 5/30/2015 13:52:52 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0638	49.735	-0.00213	.00105	.00031	-0.00009	1.0391	.03191	-0.00016	-0.00036	.00072	.00062	50.329
Stddev	.00006	.155	.00158	.00058	.00003	.00003	.0050	.00121	.00010	.00046	.00004	.00010	.109
%RSD	.90600	.31153	74.365	54.921	9.9045	30.816	.48113	3.8069	60.400	128.45	5.4721	15.767	.21678

#1	-0.0634	49.626	-0.00101	.00146	.00029	-0.00007	1.0355	.03277	-0.00023	-0.00003	.00075	.00069	50.252
#2	-0.0642	49.845	-0.00325	.00065	.00033	-0.00011	1.0426	.03105	-0.00009	-0.00069	.00069	.00055	50.406

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.03866	.00077	.04248	-0.00147	-0.00024	245.04	.00204	.00755	.00039	5.0951	-0.01312	.00487	-0.03769
Stddev	.03082	.00258	.00325	.00002	.00006	2.02	.00032	.00322	.00027	.0790	.00159	.00185	.00002
%RSD	79.716	333.94	7.6419	1.5828	25.897	.82626	15.916	42.624	68.979	1.5495	12.136	37.994	.04330

#1	-0.01687	.00260	.04478	-0.00145	-0.00028	243.60	.00181	.00528	.00020	5.0392	-0.01199	.00617	-0.03770
#2	-0.06045	-0.00105	.04019	-0.00149	-0.00019	246.47	.00226	.00983	.00059	5.1509	-0.01425	.00356	-0.03768

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.08066	-0.00146	.00033	4.9920	-0.01307	.00074	10.464	.00216	-0.00011	-.12256
Stddev	.00003	.00134	.00003	.0122	.00019	.00079	.160	.00005	.00017	.00177
%RSD	.04330	91.620	9.1997	.24485	1.4465	107.11	1.5254	2.1104	151.86	1.4405

#1	-0.08068	-0.00241	.00031	5.0007	-0.01321	.00018	10.351	.00213	-0.00023	-.12380
#2	-0.08063	-0.00052	.00035	4.9834	-0.01294	.00130	10.577	.00219	.00001	-.12131

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3012.4	51400.	6252.6
Stddev	1.3	36.	28.6
%RSD	.04422	.07054	.45813

#1	3013.3	51375.	6272.9
#2	3011.5	51426.	6232.4

Sample Name: CCV-3296664 Acquired: 5/30/2015 13:55:34 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50541	.54424	.99846	.51219	.48814	.48720	-.00063	4.9611	.51086	.51420	.52118	.51050	2.4928
Stddev	.00464	.00282	.00348	.00291	.00100	.00162	.00223	.0132	.00272	.00182	.00155	.00270	.0050
%RSD	.91837	.51814	.34851	.56744	.20489	.33150	352.33	.26655	.53340	.35361	.29770	.52915	.20213

#1	.50213	.54624	1.0009	.51425	.48743	.48606	.00094	4.9518	.51279	.51549	.52228	.50859	2.4964
#2	.50869	.54225	.99600	.51014	.48885	.48835	-.00221	4.9705	.50894	.51292	.52008	.51241	2.4893

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.983	.98766	19.909	.50522	.49944	5.0089	.50606	1.0389	1.0158	.00391	1.0402	1.0206	4.9286
Stddev	.060	.00187	.111	.00090	.00210	.0109	.00036	.0021	.0017	.00534	.0101	.0044	.0094
%RSD	.12261	.18910	.55579	.17824	.41979	.21798	.07195	.20152	.16590	136.78	.97606	.43521	.19080

#1	48.940	.98634	19.831	.50458	.50093	5.0166	.50632	1.0374	1.0146	.00013	1.0330	1.0175	4.9220
#2	49.025	.98898	19.987	.50585	.49796	5.0012	.50580	1.0403	1.0170	.00768	1.0474	1.0238	4.9353

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.547	1.0258	.49068	.00013	.50152	1.0472	-.02789	.50931	.50374	.49462
Stddev	.020	.0075	.00051	.00071	.00143	.0014	.03629	.00209	.00209	.00055
%RSD	.19080	.73370	.10475	563.99	.28529	.13346	130.13	.41097	.41399	.11020

#1	10.533	1.0205	.49031	.00063	.50051	1.0463	-.00223	.50783	.50522	.49424
#2	10.561	1.0311	.49104	-.00038	.50253	1.0482	-.05354	.51079	.50227	.49501

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3078.2	52985.	6275.6
Stddev	6.9	163.	39.3
%RSD	.22412	.30750	.62585

#1	3073.3	53100.	6303.4
#2	3083.0	52869.	6247.8

Sample Name: CCB Acquired: 5/30/2015 13:58:02 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00031	.00022	-.00304	.00160	.00002	-.00014	.00074	-.00114	-.00014	.00005	-.00006	-.00049	.00185
Stddev	.00008	.00003	.00552	.00016	.00013	.00006	.00069	.00046	.00002	.00013	.00044	.00009	.00034
%RSD	25.803	14.439	181.61	9.7241	627.64	40.181	93.645	40.503	15.409	267.14	781.82	17.531	18.526
#1	.00036	.00024	.00086	.00171	.00011	-.00018	.00025	-.00082	-.00016	-.00004	-.00037	-.00043	.00209
#2	.00025	.00019	-.00694	.00149	-.00007	-.00010	.00123	-.00147	-.00013	.00014	.00025	-.00055	.00161

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.04008	.00063	.00198	-.00002	.00014	.00199	-.00034	-.00096	-.00042	-.00232	-.00130	-.00090	-.01626
Stddev	.02257	.00215	.00140	.00002	.00002	.00499	.00014	.00072	.00039	.00248	.00404	.00340	.00366
%RSD	56.327	340.92	70.588	111.75	10.691	250.41	40.575	74.688	93.622	107.12	310.47	376.52	22.533
#1	-.02411	-.00089	.00297	.00000	.00013	-.00154	-.00024	-.00147	-.00014	-.00056	-.00416	-.00331	-.01886
#2	-.05604	.00215	.00099	-.00003	.00015	.00552	-.00044	-.00045	-.00070	-.00407	.00156	.00150	-.01367

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.03481	.00068	.00006	.00292	-.00010	.00072	-.02356	-.00043	.00018	.00018
Stddev	.00784	.00110	.00001	.00202	.00024	.00354	.00381	.00012	.00019	.00182
%RSD	22.533	162.98	20.247	69.186	255.26	493.72	16.177	26.942	109.34	1038.9
#1	-.04035	-.00010	.00007	.00149	-.00027	-.00178	-.02625	-.00035	.00031	.00146
#2	-.02926	.00145	.00005	.00435	.00008	.00322	-.02086	-.00051	.00004	-.00111

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3106.0	53533.	6265.0
Stddev	1.2	199.	25.4
%RSD	.03860	.37205	.40612
#1	3106.9	53392.	6247.1
#2	3105.2	53674.	6283.0

Sample Name: CCVL330103200 Acquired: 5/30/2015 14:00:25 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00962	.11153	.01846	.10756	.00984	.00083	.10857	.21674	.00525	.01110	.01110	.01541	.10437	3.0271
Stddev	.00037	.00027	.00062	.00062	.00003	.00001	.00097	.00326	.00055	.00001	.00021	.00001	.00017	.0026
%RSD	3.8056	.24408	3.3843	.57938	.35212	.69551	.89185	1.5039	10.401	.10872	1.8842	.05494	.16413	.08701

#1	.00988	.11134	.01802	.10800	.00982	.00083	.10925	.21443	.00564	.01109	.01095	.01541	.10425	3.0290
#2	.00936	.11173	.01890	.10712	.00987	.00084	.10788	.21904	.00487	.01111	.01125	.01540	.10449	3.0253

Check ?	Chk Pass													
Value														
Range														

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01020	.22013	.01094	.02100	1.0434	.04387	3.1663	.00865	.00416	.00792	.01659	.47898	1.0250	.10941
Stddev	.00073	.00123	.00013	.00033	.0200	.00009	.0159	.00207	.00264	.00259	.00198	.01984	.0425	.00004
%RSD	7.1833	.55920	1.1641	1.5852	1.9155	.19943	.50358	23.902	63.516	32.698	11.912	4.1422	4.1422	.04017

#1	.00969	.22100	.01103	.02124	1.0575	.04380	3.1551	.01011	.00229	.00609	.01799	.49301	1.0550	.10944
#2	.01072	.21926	.01085	.02077	1.0293	.04393	3.1776	.00719	.00602	.00975	.01519	.46495	.99500	.10938

Check ?	Chk Pass	None	Chk Pass											
Value														
Range														

Elem	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01046	.01764	.01074	.01866	.04390	.01061	.02335	.01454
Stddev	.00014	.00206	.00009	.00041	.02134	.00027	.00003	.00056
%RSD	1.3812	11.666	.82903	2.1913	48.613	2.5384	.14668	3.8337

#1	.01056	.01910	.01081	.01895	.02881	.01080	.02337	.01493
#2	.01035	.01619	.01068	.01837	.05898	.01042	.02333	.01414

Check ?	Chk Pass							
Value								
Range								

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3101.4	53636.	6318.3
Stddev	4.0	250.	4.5
%RSD	.12980	.46643	.07145

#1	3104.2	53460.	6315.1
#2	3098.5	53813.	6321.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0024	.15366	-0.00106	.00506	.00559	-0.00005	-0.00034	1.7923	-0.00001
Stddev	.00040	.00068	.00337	.00073	.00004	.00006	.00104	.0022	.00000
%RSD	171.42	.44528	318.50	14.483	.73078	108.72	305.99	.12233	2.7395

#1	-0.00052	.15318	.00133	.00558	.00556	-0.00001	.00040	1.7907	-0.00001
#2	.00005	.15415	-.00344	.00454	.00562	-0.00009	-.00108	1.7938	-0.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00032	.00058	.00310	.22684	.13912	-0.00138	.19687	.00400	.00107
Stddev	.00015	.00018	.00000	.00309	.00178	.00060	.00057	.00007	.00034
%RSD	46.985	31.766	.10025	1.3607	1.2820	43.382	.29116	1.6759	32.332

#1	.00042	.00071	.00309	.22465	.13786	-.00181	.19727	.00404	.00082
#2	.00021	.00045	.00310	.22902	.14039	-.00096	.19646	.00395	.00131

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.062	.00045	.01292	.00075	.81070	-0.00394	.00081	1.1935	2.5541
Stddev	.073	.00035	.00222	.00068	.00522	.00186	.00078	.0181	.0388
%RSD	.52014	77.092	17.211	90.497	.64443	47.237	95.630	1.5178	1.5178

#1	14.010	.00070	.01450	.00124	.81439	-.00263	.00136	1.1807	2.5267
#2	14.113	.00021	.01135	.00027	.80700	-.00526	.00026	1.2063	2.5815

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0023	.01026	.00336	.00207	.00088	-0.04445	.00089	.00358	-0.00054
Stddev	.00161	.00029	.00107	.00034	.00255	.01970	.00002	.00042	.00157
%RSD	695.62	2.8381	31.701	16.382	291.82	44.321	2.1979	11.834	292.35

#1	.00091	.01006	.00412	.00183	.00268	-.05838	.00087	.00328	-.00164
#2	-.00137	.01047	.00261	.00231	-.00093	-.03052	.00090	.00388	.00057

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3151.2	54240.	6400.8
Stddev	2.9	68.	8.0
%RSD	.09302	.12516	.12505

#1	3153.3	54192.	6406.4
#2	3149.1	54288.	6395.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0033	.11767	-0.0051	.00867	.00813	-0.0019	.00027	2.6598	-0.0017
Stddev	.00038	.00054	.00200	.00069	.00004	.00002	.00100	.0059	.00006
%RSD	116.97	.46138	392.62	7.9647	.54106	12.661	373.82	.21995	36.169

#1	-0.0006	.11805	.00091	.00915	.00810	-0.0020	-0.0044	2.6639	-0.0021
#2	-0.0059	.11728	-.00192	.00818	.00816	-0.0017	.00098	2.6556	-0.0013

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00038	.05594	.00098	.10907	.10427	-0.00211	.59322	.00293	.00557
Stddev	.00011	.00101	.00065	.00015	.09073	.00032	.00269	.00009	.00062
%RSD	28.638	1.7979	66.959	.13859	87.008	15.089	.45297	2.9266	11.081

#1	.00030	.05523	.00051	.10918	.04012	-0.00234	.59132	.00299	.00513
#2	.00046	.05665	.00144	.10897	.16843	-0.00189	.59512	.00287	.00601

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 {57}	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.9317	W 10.286	.00032	.02641	-0.00129	4.4797	-0.00264	.00329	1.7809
Stddev	.0178	.162	.00040	.00334	.00060	.1454	.00359	.00294	.0102
%RSD	.19954	1.5763	126.02	12.649	46.663	3.2466	136.16	89.278	.57393

#1	8.9191	10.401	.00060	.02405	-0.00087	4.3769	-0.0010	.00121	1.7881
#2	8.9443	10.171	.00003	.02877	-0.00172	4.5825	-0.00517	.00536	1.7736

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		500.00							
Low Limit		11.000							

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.8111	.00075	.02259	.00336	.00185	-0.00144	-0.02438	.00128	.00321
Stddev	.0219	.00093	.00008	.00035	.00043	.00121	.01869	.00023	.00092
%RSD	.57393	123.74	.34056	10.271	23.388	83.837	76.674	17.841	28.685

#1	3.8265	.00009	.02265	.00361	.00154	-0.00230	-0.03759	.00144	.00256
#2	3.7956	.00140	.02254	.00312	.00215	-0.00059	-0.01116	.00112	.00386

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 {99}
Units	ppm
Avg	-0.00047
Stddev	.00018
%RSD	38.174

#1	-0.00035
#2	-0.00060

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69774-A-7-B Acquired: 5/30/2015 14:05:46 Type: Unk

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broaderl Prep Date: Custom ID2: Custom ID3:

Comment: 279236 SAR

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	3151.0	54342.	6463.2
Stddev	5.6	49.	.8
%RSD	.17648	.09029	.01192
#1	3154.9	54377.	6463.7
#2	3147.1	54308.	6462.6

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00019	14.858	.00223	.01275	.42710	.00091	.00112	112.61	.00060
Stddev	.00022	.079	.00065	.00012	.00143	.00000	.00144	.42	.00004
%RSD	118.89	.53308	29.345	.97125	.33488	.24896	128.56	.37260	7.2983

#1	.00035	14.914	.00177	.01284	.42811	.00092	.00010	112.90	.00063
#2	.00003	14.802	.00269	.01267	.42609	.00091	.00214	112.31	.00057

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00985	W .25505	.04158	14.599	5.2978	.00791	6.2022	.95353	.00497
Stddev	.00037	.00216	.00001	.054	.0460	.00231	.0691	.00122	.00001
%RSD	3.7954	.84545	.03492	.37271	.86874	29.246	1.1147	.12779	.18144

#1	.00959	.25352	.04157	14.638	5.3303	.00627	6.1533	.95267	.00498
#2	.01012	.25657	.04159	14.561	5.2652	.00955	6.2511	.95440	.00496

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.494	.02941	.44322	.02124	5.2759	-.00115	.00761	28.614	61.235
Stddev	.136	.00044	.00693	.00039	.1697	.00061	.00066	.157	.336
%RSD	.51385	1.5052	1.5632	1.8126	3.2156	52.537	8.7241	.54928	.54928

#1	26.591	.02910	.43832	.02152	5.1559	-.00073	.00714	28.726	61.473
#2	26.398	.02972	.44812	.02097	5.3958	-.00158	.00808	28.503	60.997

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00274	.31848	.00523	.20580	-.00865	-.01782	.04770	.06466	.00422
Stddev	.00082	.00077	.00067	.00263	.00030	.03976	.00082	.00132	.00044
%RSD	30.107	.24068	12.792	1.2756	3.4391	223.11	1.7246	2.0474	10.372

#1	.00215	.31903	.00476	.20394	-.00844	.01029	.04711	.06372	.00453
#2	.00332	.31794	.00570	.20765	-.00886	-.04593	.04828	.06559	.00391

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3105.4	52843.	6451.9
Stddev	1.9	82.	41.6
%RSD	.06088	.15537	.64428

#1	3104.1	52901.	6422.6
#2	3106.8	52785.	6481.3

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0109	119.60	.02223	.08712	1.3970	.00809	-0.00260	201.80	.00116
Stddev	.00107	1.03	.00142	.00205	.0036	.00006	.00036	1.62	.00017
%RSD	97.767	.86133	6.3744	2.3577	.26055	.68615	13.812	.80327	14.440

#1	-0.0185	118.87	.02323	.08567	1.3944	.00805	-0.00235	200.66	.00105
#2	-0.00034	120.33	.02123	.08857	1.3996	.00813	-0.00285	202.95	.00128

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05446	.06487	.20562	118.90	13.369	.09341	34.590	2.4489	-0.0168
Stddev	.00036	.00001	.00088	1.97	.074	.00018	.107	.0034	.00014
%RSD	.66743	.01639	.42823	1.6596	.55221	.19758	.30846	.13772	8.0500

#1	.05421	.06488	.20500	117.50	13.317	.09328	34.515	2.4465	-0.0178
#2	.05472	.06486	.20624	120.29	13.421	.09354	34.666	2.4513	-0.0159

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	69.833	.07231	W 7.1989	.08691	36.464	W -.01259	.00199	16.290	34.860
Stddev	.285	.00082	.1411	.00159	.078	.00121	.00008	.030	.064
%RSD	.40865	1.1361	1.9606	1.8297	.21262	9.5747	4.1788	.18440	.18440

#1	69.631	.07173	7.0991	.08579	36.409	-.01174	.00193	16.268	34.814
#2	70.034	.07289	7.2987	.08804	36.519	-.01344	.00205	16.311	34.905

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit			2.0000			2.0000			
Low Limit			-1.0000			-0.1000			

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00754	1.2542	.06522	.17137	-.00546	F -.10277	.18297	.41864	.02398
Stddev	.00016	.0026	.00182	.00113	.00416	.02398	.00011	.00098	.00140
%RSD	2.1163	.21058	2.7834	.65864	76.240	23.338	.06269	.23365	5.8244

#1	.00743	1.2523	.06393	.17058	-.00841	-.08581	.18289	.41795	.02496
#2	.00766	1.2560	.06650	.17217	-.00252	-.11973	.18305	.41934	.02299

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass				
High Limit						50.000			
Low Limit						-1.0000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3347.0	57091.	7151.5
Stddev	8.4	4.	24.2
%RSD	.25146	.00673	.33810

#1	3352.9	57094.	7168.6
#2	3341.0	57089.	7134.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00043	.01276	-0.00274	.02755	.03459	-0.00015	.00220	48.530	.00018
Stddev	.00001	.00182	.00449	.00044	.00027	.00011	.00232	.074	.00009
%RSD	1.8497	14.278	163.88	1.5995	.77809	68.437	105.56	.15305	49.971

#1	-0.00042	.01405	.00044	.02723	.03478	-0.00008	.00384	48.583	.00012
#2	-0.00043	.01148	-.00591	.02786	.03440	-0.00023	.00056	48.478	.00025

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.00050	.00002	3.9759	.46666	-0.00186	21.566	2.4245	-0.00030
Stddev	.00048	.00014	.00004	.0008	.00098	.00058	.003	.0024	.00016
%RSD	827.08	28.665	153.07	.02089	.21056	31.504	.01414	.10097	55.369

#1	.00040	.00061	.00000	3.9764	.46596	-.00144	21.564	2.4228	-.00041
#2	-.00028	.00040	.00005	3.9753	.46735	-.00227	21.568	2.4262	-.00018

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	36.685	.00270	.58171	.00073	.80794	-0.00246	.00249	18.420	39.418
Stddev	.118	.00025	.00514	.00003	.00795	.00450	.00119	.120	.256
%RSD	.32039	9.4357	.88406	3.7251	.98400	182.65	47.557	.65017	.65017

#1	36.602	.00252	.57808	.00075	.81356	-.00564	.00166	18.504	39.599
#2	36.768	.00288	.58535	.00071	.80232	.00072	.00333	18.335	39.237

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00058	.20858	-0.00053	.00062	-0.00563	-0.00291	-0.00021	.00148	-0.00055
Stddev	.00151	.00005	.00025	.00038	.00444	.00602	.00008	.00022	.00138
%RSD	259.69	.02355	47.204	61.381	78.837	206.52	38.548	14.755	252.20

#1	-0.00049	.20855	-0.00071	.00089	-0.00877	.00134	-0.00015	.00163	-.00152
#2	.00165	.20862	-0.00035	.00035	-0.00249	-0.00717	-0.00027	.00132	.00043

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3121.4	53570.	6402.8
Stddev	5.3	288.	10.5
%RSD	.17038	.53788	.16400

#1	3125.1	53774.	6395.4
#2	3117.6	53366.	6410.2

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00779	49.702	.00093	.00159	.00050	-0.00006	1.0432	.03871	-0.00021	-0.00015	.00101
Stddev	.00001	.226	.00043	.00021	.00001	.00009	.0009	.00096	.00026	.00012	.00014
%RSD	.18969	.45397	46.180	13.132	2.5627	154.20	.08839	2.4925	121.72	79.818	13.797

#1	-0.00778	49.543	.00124	.00144	.00051	-0.00013	1.0438	.03939	-0.00040	-0.00024	.00092
#2	-0.00780	49.862	.00063	.00173	.00049	.00001	1.0425	.03803	-0.00003	-0.00007	.00111

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00004	50.451	-0.04354	-0.00113	.04640	-0.00139	-0.00043	246.69	.00245	.00622	.00022
Stddev	.00036	.109	.01804	.00077	.00554	.00009	.00012	.44	.00012	.00164	.00046
%RSD	931.95	.21613	41.449	68.061	11.947	6.1657	26.864	.17696	4.7297	26.301	210.60

#1	-0.00029	50.374	-.03078	-.00168	.04248	-.00133	-.00051	246.39	.00237	.00506	.00054
#2	.00022	50.529	-.05630	-.00059	.05032	-.00145	-.00035	247.00	.00253	.00737	-.00011

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.1541	-0.01223	.00859	-0.00102	-0.00219	-0.00105	.00034	4.9698	-0.01282	-0.00028	W 10.642
Stddev	.0657	.00349	.00129	.00505	.01081	.00048	.00006	.0012	.00045	.00134	.135
%RSD	1.2752	28.537	14.961	493.78	493.78	45.444	16.293	.02388	3.4752	477.91	1.2692

#1	5.2005	-.01470	.00950	-.00460	-.00984	-.00139	.00031	4.9707	-.01313	-.00123	10.546
#2	5.1076	-.00976	.00769	.00255	.00546	-.00072	.00038	4.9690	-.01250	.00067	10.737

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value											10.000
Range											5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00237	-0.00022	-.12231
Stddev	.00022	.00039	.00065
%RSD	9.2065	177.83	.52918

#1	.00253	.00006	-.12277
#2	.00222	-.00049	-.12185

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3012.3	51417.	6236.9
Stddev	1.6	9.	30.2
%RSD	.05421	.01799	.48359

#1	3011.1	51424.	6258.3
#2	3013.4	51410.	6215.6

Sample Name: CCV-3296664 Acquired: 5/30/2015 14:18:58 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50459	.54347	1.0277	.53021	.48910	.48634	.00043	4.9284	.51916	.51392	.51977	.51106	2.4879
Stddev	.00053	.00225	.0037	.00321	.00145	.00139	.00250	.0134	.00116	.00129	.00077	.00097	.0038
%RSD	.10475	.41474	.36473	.60513	.29573	.28542	576.08	.27109	.22391	.25070	.14811	.18925	.15291

#1	.50496	.54188	1.0251	.52794	.48808	.48536	.00220	4.9190	.51833	.51301	.52032	.51175	2.4852
#2	.50421	.54507	1.0304	.53248	.49012	.48732	-.00133	4.9379	.51998	.51483	.51923	.51038	2.4906

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.710	.97727	19.992	.50728	.50418	5.0423	.50893	1.0514	1.0151	.00413	1.0480	1.0308	4.8962
Stddev	.191	.00609	.054	.00143	.00106	.0101	.00125	.0008	.0059	.00145	.0036	.0023	.0445
%RSD	.39307	.62290	.26857	.28209	.21101	.20058	.24557	.07821	.57975	35.075	.34381	.22113	.90937

#1	48.574	.97297	20.030	.50627	.50493	5.0495	.50804	1.0520	1.0110	.00516	1.0506	1.0324	4.9277
#2	48.845	.98158	19.954	.50830	.50343	5.0352	.50981	1.0508	1.0193	.00311	1.0455	1.0292	4.8647

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.478	1.0268	.48985	.00211	.50390	1.0455	-.04409	.51160	.49911	.48400
Stddev	.095	.0043	.00108	.00182	.00075	.0012	.04012	.00394	.00022	.00465
%RSD	.90937	.41940	.22005	86.486	.14838	.11706	91.003	.76963	.04359	.96041

#1	10.545	1.0237	.48909	.00082	.50443	1.0447	-.01572	.51439	.49896	.48729
#2	10.410	1.0298	.49061	.00339	.50337	1.0464	-.07246	.50882	.49927	.48071

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3047.2	52673.	6341.5
Stddev	5.1	210.	.1
%RSD	.16763	.39775	.00167

#1	3050.8	52821.	6341.4
#2	3043.6	52524.	6341.6

Sample Name: CCB Acquired: 5/30/2015 14:21:26 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0034	-0.0005	-0.0004	.00159	-0.00024	-0.00012	.00013	.00222	-0.00020	-0.00009	.00030	-0.00068	.00101
Stddev	.00047	.00047	.00034	.00074	.00001	.00003	.00015	.00116	.00009	.00015	.00011	.00022	.00052
%RSD	137.72	882.00	928.49	46.296	5.4068	24.493	116.08	52.228	44.188	159.02	36.283	33.173	51.615

#1	-0.00001	.00028	.00020	.00107	-0.00023	-0.00010	.00002	.00304	-0.00014	.00001	.00022	-0.00084	.00138
#2	-0.00068	-0.00039	-0.00028	.00211	-0.00025	-0.00014	.00024	.00140	-0.00027	-0.00020	.00037	-0.00052	.00064

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.04795	-0.00113	-0.00327	-0.00003	.00021	.00369	-0.00042	.00048	-0.00026	-0.00149	.00020	-0.00034	-0.00990
Stddev	.01137	.00020	.00105	.00004	.00028	.00411	.00029	.00430	.00017	.00239	.00050	.00025	.00033
%RSD	23.706	17.844	32.231	113.76	131.90	111.39	69.799	894.57	66.731	160.59	252.75	74.209	3.3072

#1	-0.03991	-0.00127	-0.00252	-0.00001	.00001	.00660	-0.00062	.00352	-0.00038	-0.00317	.00055	-0.00016	-0.00967
#2	-0.05599	-0.00099	-0.00401	-0.00006	.00041	.00078	-0.00021	-0.00256	-0.00014	.00020	-0.00016	-0.00052	-0.01013

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.02119	.00021	.00003	.00072	.00018	.00014	-0.00230	-0.00031	-0.00006	.00010
Stddev	.00070	.00051	.00006	.00090	.00008	.00115	.01987	.00049	.00029	.00046
%RSD	3.3072	244.86	207.05	123.75	43.651	851.52	865.87	160.88	504.87	452.92

#1	-0.02070	.00056	.00007	.00009	.00012	.00095	.01176	-0.00066	.00015	.00042
#2	-0.02169	-0.00015	-0.00001	.00136	.00023	-0.00068	-0.01635	.00004	-0.00026	-0.00022

Check ?	Chk Pass									
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3092.3	53367.	6284.7
Stddev	6.1	64.	21.3
%RSD	.19608	.12062	.33964

#1	3096.6	53412.	6299.8
#2	3088.0	53321.	6269.6

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00970	.11001	F .01039	.10864	.00979	.00080	.10786	.20303	.00533	.01115	.01088	.01594
Stddev	.00046	.00041	.00362	.00027	.00016	.00004	.00093	.00010	.00003	.00015	.00004	.00047
%RSD	4.7488	.37077	34.836	.25060	1.6728	4.9111	.85911	.04860	.60294	1.3411	.37270	2.9340

#1	.01003	.11029	.01295	.10883	.00990	.00078	.10852	.20296	.00535	.01126	.01086	.01627
#2	.00938	.10972	.00783	.10845	.00967	.00083	.10720	.20310	.00531	.01105	.01091	.01560

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass								
Value			.01500									
Range			-30.000%									

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10185	2.9290	.00806	.21256	.01082	.02021	1.0314	.04216	3.1015	.00797	-.00045	.00968
Stddev	.00004	.0126	.00060	.00662	.00002	.00025	.0021	.00013	.0082	.00071	.00074	.00044
%RSD	.04104	.43160	7.4973	3.1155	.21567	1.2216	.20662	.30474	.26306	8.9091	165.62	4.4983

#1	.10182	2.9201	.00849	.21724	.01081	.02038	1.0299	.04207	3.0958	.00847	.00008	.00938
#2	.10188	2.9380	.00764	.20788	.01084	.02004	1.0329	.04225	3.1073	.00747	-.00097	.00999

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01574	4.7689	1.0206	.10682	.01015	.01885	.01043	.01669	.06228	.01057	.02263	.01365
Stddev	.00449	.01582	.0339	.00090	.00001	.00032	.00034	.00020	.01543	.00013	.00041	.00008
%RSD	28.493	3.3175	3.3175	.84123	.05946	1.7017	3.2587	1.2047	24.772	1.2512	1.8115	.60082

#1	.01891	.48808	1.0445	.10618	.01015	.01862	.01019	.01683	.05137	.01048	.02234	.01359
#2	.01257	.46571	.99661	.10745	.01014	.01908	.01067	.01655	.07319	.01067	.02292	.01371

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3096.1	53437.	6335.1
Stddev	3.4	260.	3.0
%RSD	.10887	.48597	.04695

#1	3098.5	53254.	6333.0
#2	3093.7	53621.	6337.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00023	.00446	.00000	.00720	.00077	-.00025	-.00165	W .11814	-.00015
Stddev	.00062	.00042	.00250	.00128	.00005	.00004	.00041	.00020	.00004
%RSD	270.14	9.3216	95905.	17.804	6.7500	17.253	25.128	.17297	24.838

#1	-.00021	.00475	.00177	.00810	.00073	-.00028	-.00135	.11829	-.00013
#2	.00067	.00417	-.00176	.00629	.00080	-.00022	-.00194	.11800	-.00018

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								.10000	
Low Limit								-.10000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00063	-.00005	.00243	.03978	-.01678	.00009	.01083	.00112	.00003
Stddev	.00005	.00034	.00060	.00096	.01597	.00031	.00138	.00001	.00047
%RSD	7.8099	719.88	24.838	2.4196	95.184	355.95	12.748	.86844	1486.9

#1	-.00067	-.00029	.00285	.03910	-.02807	.00031	.01181	.00111	.00037
#2	-.00060	.00019	.00200	.04046	-.00548	-.00013	.00985	.00113	-.00030

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	313.01	-.00007	.00274	F .02038	.01550	-.00057	.00270	-.00358	-.00766
Stddev	.86	.00042	.00206	.00062	.00250	.00129	.00031	.02597	.05557
%RSD	.27606	622.46	75.101	3.0299	16.095	224.71	11.339	725.29	725.29

#1	312.40	.00023	.00128	.02082	.01727	-.00148	.00292	-.02194	-.04696
#2	313.62	-.00036	.00419	.01995	.01374	.00034	.00249	.01478	.03163

Check ?	None	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit				.00900					
Low Limit				-.00300					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00117	.00052	.00199	.00041	.00013	-.00762	-.00092	.00321	-.00042
Stddev	.00023	.00003	.00079	.00013	.00403	.02267	.00002	.00036	.00201
%RSD	19.998	6.3680	39.438	30.981	3052.8	297.50	2.1935	11.172	483.03

#1	.00134	.00050	.00144	.00050	.00298	-.02365	-.00093	.00296	.00100
#2	.00101	.00055	.00255	.00032	-.00272	.00841	-.00091	.00347	-.00184

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2986.3	50812.	6193.8
Stddev	.4	182.	7.7
%RSD	.01300	.35802	.12501

#1	2986.6	50940.	6188.3
#2	2986.0	50683.	6199.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.21742	W .42018	.83606	.21400	2.4160	.00980	.40625	10.034	.23548
Stddev	.00147	.00041	.00038	.00041	.0191	.00007	.00109	.076	.00028
%RSD	.67446	.09861	.04598	.19131	.79001	.69617	.26942	.76193	.11956

#1	.21846	.42047	.83633	.21429	2.4025	.00985	.40702	9.9803	.23528
#2	.21639	.41988	.83578	.21371	2.4295	.00975	.40547	10.088	.23567

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit		.43200							
Low Limit		1.7200							

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10124	F 1.0270	.46507	.21333	10.561	.20737	9.7347	.10289	.21164
Stddev	.00023	.0070	.00038	.00338	.132	.00140	.0165	.00040	.00052
%RSD	.23041	.68621	.08099	1.5835	1.2522	.67641	.16905	.39165	.24477

#1	.10108	1.0320	.46533	.21094	10.468	.20638	9.7231	.10260	.21128
#2	.10141	1.0220	.46480	.21572	10.655	.20837	9.7463	.10317	.21201

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.25200							
Low Limit		.16800							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 324.68	.10031	2.1725	1.1351	.43493	F .10957	.64127	2.0082	F 4.2975
Stddev	2.24	.00000	.0115	.0015	.00290	.00284	.01032	.0272	.0582
%RSD	.69140	.00286	.53046	.13646	.66628	2.5886	1.6087	1.3552	1.3552

#1	323.09	.10030	2.1807	1.1340	.43698	.11158	.64857	1.9889	4.2563
#2	326.26	.10031	2.1644	1.1362	.43288	.10757	.63398	2.0274	4.3387

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Fail	Chk Pass	Chk Pass	Chk Fail
High Limit	11.200					.10800			4.9220
Low Limit	9.1000					.08800			4.0200

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.40735	.20024	.20719	.20841	.39315	.42743	.10370	.52196	.09518
Stddev	.00189	.00128	.00052	.00043	.00168	.01797	.00041	.00475	.00064
%RSD	.46275	.64077	.25338	.20600	.42671	4.2045	.39464	.90929	.66726

#1	.40601	.19933	.20681	.20810	.39433	.41472	.10341	.51861	.09473
#2	.40868	.20115	.20756	.20871	.39196	.44013	.10399	.52532	.09562

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2955.0	50463.	6179.1
Stddev	13.7	299.	55.4
%RSD	.46201	.59194	.89631

#1	2964.7	50675.	6218.3
#2	2945.4	50252.	6139.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00012	.00896	-.00038	.00887	.39178	-.00026	.00054	141.85	-.00004
Stddev	.00031	.00034	.00591	.00011	.00083	.00009	.00219	.53	.00011
%RSD	258.13	3.7541	1566.9	1.2708	.21153	36.650	406.89	.37279	244.92

#1	.00034	.00920	.00380	.00895	.39119	-.00019	.00209	141.48	-.00012
#2	-.00010	.00873	-.00456	.00879	.39236	-.00032	-.00101	142.23	.00003

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00048	.00035	.00295	.01799	.67878	.00431	4.2566	.14894	-.00249
Stddev	.00031	.00015	.00024	.00141	.03026	.00237	.0372	.00038	.00054
%RSD	63.089	43.056	7.9796	7.8383	4.4574	55.023	.87302	.25592	21.631

#1	.00070	.00024	.00279	.01899	.65738	.00264	4.2829	.14867	-.00211
#2	.00027	.00046	.00312	.01699	.70017	.00599	4.2304	.14921	-.00287

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	311.63	.00731	.01964	.05237	.92455	.00174	.00029	.78775	1.6858
Stddev	.74	.00003	.00523	.00043	.00416	.00059	.00482	.01806	.0386
%RSD	.23738	.38888	26.637	.82903	.45027	33.688	1657.5	2.2930	2.2930

#1	311.10	.00733	.01594	.05268	.92161	.00215	.00370	.80053	1.7131
#2	312.15	.00729	.02334	.05206	.92750	.00133	-.00312	.77498	1.6585

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00154	.27760	.00190	-.00045	-.00891	-.03745	.00012	.00429	-.00065
Stddev	.00146	.00044	.00045	.00025	.00008	.01598	.00015	.00103	.00274
%RSD	94.388	.15782	23.632	55.786	.93085	42.676	127.55	24.118	422.84

#1	.00051	.27729	.00222	-.00062	-.00897	-.04876	.00023	.00356	.00129
#2	.00257	.27791	.00158	-.00027	-.00885	-.02615	.00001	.00502	-.00258

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2882.3	49809.	6111.8
Stddev	.5	6.	53.5
%RSD	.01594	.01221	.87571

#1	2882.6	49805.	6149.6
#2	2882.0	49813.	6073.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0004	.09926	.00178	.00913	.39438	-0.0027	-0.00122	103.38	.00036
Stddev	.00080	.00029	.00391	.00103	.00067	.00010	.00031	.21	.00003
%RSD	2190.8	.29552	219.51	11.313	.17095	38.486	25.148	.19913	7.5532

#1	.00053	.09947	.00454	.00986	.39390	-.00034	-.00100	103.23	.00038
#2	-.00060	.09906	-.00098	.00840	.39486	-.00019	-.00144	103.52	.00035

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0052	.00071	.00341	.03225	.39456	.00168	2.8411	.00759	-0.0263
Stddev	.00016	.00017	.00019	.00030	.05020	.00021	.0061	.00005	.00030
%RSD	30.385	23.360	5.6828	.94412	12.723	12.326	.21621	.67614	11.449

#1	-.00041	.00059	.00327	.03204	.35907	.00153	2.8454	.00755	-.00285
#2	-.00064	.00082	.00355	.03247	.43006	.00182	2.8367	.00763	-.00242

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	308.70	.00345	.03482	.01135	.16089	.00380	.00451	1.0547	2.2570
Stddev	.34	.00000	.00176	.00101	.00219	.00148	.00268	.0202	.0432
%RSD	.10996	.13070	5.0644	8.8980	1.3632	38.978	59.471	1.9151	1.9151

#1	308.46	.00345	.03607	.01063	.16244	.00484	.00261	1.0690	2.2876
#2	308.94	.00344	.03357	.01206	.15934	.00275	.00640	1.0404	2.2264

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00220	.17098	.00324	.00009	-.00759	-.04605	-.00028	.01418	-.00052
Stddev	.00007	.00052	.00068	.00004	.00200	.00222	.00029	.00018	.00050
%RSD	3.2576	.30235	21.050	45.382	26.278	4.8118	104.23	1.2703	95.922

#1	.00225	.17061	.00276	.00012	-.00901	-.04761	-.00007	.01405	-.00088
#2	.00215	.17134	.00372	.00006	-.00618	-.04448	-.00049	.01430	-.00017

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2896.0	49120.	5969.3
Stddev	.3	361.	6.4
%RSD	.01128	.73581	.10664

#1	2896.2	48864.	5973.8
#2	2895.8	49376.	5964.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0018	.02160	-0.00065	.00242	.08117	-0.00032	.00116	20.938	.00008
Stddev	.00077	.00005	.00571	.00014	.00021	.00005	.00108	.056	.00031
%RSD	438.10	.22103	872.04	5.6306	.25834	16.663	93.621	.26829	408.17

#1	-0.00072	.02163	-0.00469	.00252	.08102	-0.00028	.00039	20.899	.00029
#2	.00037	.02157	.00338	.00233	.08132	-0.00036	.00192	20.978	-0.0014

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.00008	.00025	.01220	.08104	-0.00158	.60686	.00153	-0.00074
Stddev	.00027	.00003	.00021	.00086	.06460	.00014	.00134	.00005	.00034
%RSD	425.48	36.004	85.354	7.0417	79.714	9.1921	.22020	3.2315	46.247

#1	.00025	.00010	.00010	.01281	.12673	-0.00168	.60591	.00156	-0.00050
#2	-0.00013	.00006	.00040	.01160	.03536	-0.00147	.60780	.00149	-0.00098

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	65.056	.00116	.00839	.00263	.03511	-0.00037	-0.00162	.20191	.43209
Stddev	1.191	.00015	.00025	.00211	.00234	.00368	.00505	.00871	.01864
%RSD	1.8306	12.712	2.9283	80.367	6.6541	981.92	312.12	4.3142	4.3142

#1	64.214	.00126	.00821	.00113	.03677	-0.00298	.00195	.19575	.41891
#2	65.898	.00105	.00856	.00412	.03346	.00223	-0.00519	.20807	.44528

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00153	.03612	.00198	-0.00010	-0.00218	W -0.05189	-0.00046	.00222	-0.00078
Stddev	.00049	.00029	.00045	.00013	.00219	.02132	.00040	.00030	.00070
%RSD	32.016	.79759	22.761	127.72	100.65	41.083	87.496	13.537	89.353

#1	.00188	.03592	.00230	-0.00020	-0.00373	-0.03682	-0.00017	.00201	-0.00127
#2	.00118	.03632	.00166	-0.00001	-0.00063	-0.06697	-0.00074	.00243	-0.00029

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-0.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3007.4	51112.	5977.2
Stddev	9.2	185.	29.8
%RSD	.30519	.36223	.49883

#1	3000.9	51243.	5956.1
#2	3013.9	50981.	5998.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .20540	.40426	.79870	.20553	2.6372	.00918	F .38829	106.63	.22638
Stddev	.00013	.00024	.00500	.00315	.0005	.00001	.00410	.01	.00306
%RSD	.06226	.05985	.62575	1.5337	.01802	.06564	1.0563	.01202	1.3527

#1	.20531	.40409	.80224	.20776	2.6369	.00918	.39119	106.62	.22855
#2	.20549	.40443	.79517	.20330	2.6376	.00919	.38539	106.64	.22422

Check ?	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass				
High Limit	.10000						.10000		
Low Limit	-.01000						-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09495	W .94375	.44015	.20181	10.453	.20108	11.764	.10237	.19882
Stddev	.00158	.00176	.00349	.00224	.026	.00030	.026	.00077	.00177
%RSD	1.6595	.18629	.79324	1.1087	.24921	.14900	.22422	.75086	.88800

#1	.09606	.94499	.43768	.20339	10.435	.20130	11.745	.10182	.20007
#2	.09383	.94251	.44262	.20023	10.472	.20087	11.782	.10291	.19757

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	300.58	.09706	W 2.1333	1.0571	.55178	.10865	.60841	2.9605	6.3355
Stddev	.17	.00139	.0268	.0118	.00772	.00224	.01337	.0033	.0070
%RSD	.05683	1.4326	1.2566	1.1181	1.3996	2.0609	2.1974	.11029	.11029

#1	300.45	.09805	2.1523	1.0655	.55724	.11023	.61786	2.9628	6.3404
#2	300.70	.09608	2.1143	1.0488	.54632	.10707	.59895	2.9582	6.3305

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.38561	.34841	.19479	.19630	.36408	.39365	.09887	.49382	.08908
Stddev	.00317	.00063	.00159	.00173	.00178	.00158	.00109	.00405	.00099
%RSD	.82188	.18132	.81673	.88001	.48999	.40140	1.1012	.81989	1.1157

#1	.38786	.34886	.19366	.19508	.36535	.39254	.09810	.49095	.08838
#2	.38337	.34796	.19591	.19752	.36282	.39477	.09964	.49668	.08979

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2900.6	49627.	5988.1
Stddev	12.3	149.	19.8
%RSD	.42492	.29979	.33051

#1	2909.3	49733.	6002.1
#2	2891.9	49522.	5974.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .19150	.38849	.74187	.19605	2.4711	.00866	F .36718	99.743	.21131
Stddev	.00055	.00188	.01326	.00117	.0084	.00000	.00016	.236	.00045
%RSD	.28530	.48416	1.7877	.59609	.34055	.01562	.04324	.23710	.21523

#1	.19111	.38982	.75124	.19523	2.4651	.00866	.36707	99.576	.21099
#2	.19189	.38716	.73249	.19688	2.4770	.00866	.36730	99.910	.21164

Check ?	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass				
High Limit	.10000						.10000		
Low Limit	-.01000						-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08826	W .88998	.41256	.19332	9.6213	.18378	11.053	.09652	.18559
Stddev	.00028	.00158	.00100	.00160	.1111	.00222	.035	.00029	.00012
%RSD	.31623	.17734	.24176	.82968	1.1546	1.2053	.31639	.30266	.06640

#1	.08846	.89110	.41186	.19445	9.5427	.18222	11.078	.09672	.18550
#2	.08807	.88887	.41327	.19218	9.6998	.18535	11.029	.09631	.18568

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	282.11	.09055	1.9943	.99238	.52788	.10111	.57550	2.7429	5.8699
Stddev	.89	.00008	.0020	.00364	.01157	.00012	.00450	.0422	.0903
%RSD	.31688	.08769	.10095	.36683	2.1914	.11491	.78259	1.5376	1.5376

#1	281.47	.09060	1.9929	.99495	.53606	.10103	.57868	2.7131	5.8061
#2	282.74	.09049	1.9957	.98980	.51970	.10119	.57231	2.7728	5.9337

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.36035	.32701	.18392	.18522	.34244	.38817	.09312	.46329	.08307
Stddev	.00089	.00169	.00062	.00079	.00166	.01767	.00030	.00076	.00124
%RSD	.24702	.51543	.33556	.42605	.48591	4.5521	.32137	.16346	1.4940

#1	.36098	.32582	.18436	.18577	.34361	.40066	.09291	.46383	.08395
#2	.35972	.32820	.18348	.18466	.34126	.37568	.09333	.46276	.08220

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2933.2	50075.	6051.0
Stddev	10.5	137.	24.9
%RSD	.35756	.27330	.41072

#1	2925.8	49978.	6033.4
#2	2940.6	50172.	6068.6

Sample Name: 280-69513-A-6-H PDS Acquired: 5/30/2015 14:56:27 Type: Unk

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment: 279206 6010C Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05042	1.0661	.20511	.11071	.48305	.04983	.00221	119.49	.05300
Stddev	.00044	.0010	.00255	.00019	.00349	.00007	.00113	.43	.00026
%RSD	.86878	.09141	1.2445	.17257	.72249	.13148	50.819	.35957	.49212

#1	.05011	1.0655	.20692	.11085	.48552	.04978	.00301	119.79	.05318
#2	.05073	1.0668	.20331	.11058	.48059	.04987	.00142	119.18	.05281

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04803	.04833	.05433	.99951	20.783	.10440	21.679	.05700	.04758
Stddev	.00034	.00060	.00001	.00994	.090	.00170	.039	.00016	.00081
%RSD	.70839	1.2456	.01067	.99427	.43315	1.6312	.18058	.27320	1.6970

#1	.04827	.04875	.05433	1.0065	20.847	.10319	21.707	.05711	.04815
#2	.04779	.04790	.05434	.99248	20.719	.10560	21.651	.05689	.04701

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	320.93	.05167	W 2.1857	.10507	.15974	.10403	.20945	6.0121	12.866
Stddev	1.06	.00018	.0156	.00005	.00277	.00010	.00741	.0682	.146
%RSD	.33178	.34890	.71530	.05102	1.7313	.09899	3.5384	1.1348	1.1348

#1	321.68	.05154	2.1967	.10503	.15778	.10395	.21469	5.9639	12.763
#2	320.18	.05179	2.1746	.10511	.16169	.10410	.20421	6.0603	12.969

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10064	.21620	.20422	.05089	.18039	.48979	.05198	.22024	.04565
Stddev	.00001	.00112	.00340	.00068	.00256	.02169	.00117	.00074	.00050
%RSD	.01444	.51584	1.6661	1.3309	1.4212	4.4279	2.2524	.33582	1.0849

#1	.10065	.21699	.20181	.05137	.18220	.50512	.05280	.21971	.04600
#2	.10063	.21541	.20663	.05041	.17858	.47445	.05115	.22076	.04530

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2888.1	49870.	6130.6
Stddev	25.2	238.	1.5
%RSD	.87213	.47797	.02493

#1	2905.9	50039.	6131.6
#2	2870.3	49702.	6129.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00005	.01025	.00125	.01131	.16323	-0.00019	-0.00218	1.2963	.00300
Stddev	.00030	.00061	.00201	.00028	.00172	.00002	.00297	.0133	.00026
%RSD	646.52	5.9383	160.55	2.4342	1.0542	11.317	135.99	1.0258	8.6231

#1	-0.00026	.01068	.00267	.01111	.16444	-0.00018	-0.00428	1.3057	.00318
#2	.00017	.00982	-0.00017	.01150	.16201	-0.00021	-0.00008	1.2869	.00281

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00083	W .69443	.00496	.01378	.29655	.00009	.06788	.00347	.00113
Stddev	.00013	.00075	.00008	.00065	.03146	.00136	.00809	.00004	.00010
%RSD	16.167	.10784	1.5358	4.6842	10.610	1585.4	11.921	1.2712	8.6894

#1	.00092	.69390	.00491	.01333	.31880	-0.00088	.07360	.00350	.00106
#2	.00073	.69496	.00501	.01424	.27430	.00105	.06216	.00344	.00120

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	327.83	-0.00020	1.2222	.00147	.32054	.00722	.00420	.05526	.11826
Stddev	1.78	.00052	.0018	.00111	.00501	.00089	.00134	.00075	.00162
%RSD	.54382	257.92	.14904	75.414	1.5634	12.317	31.875	1.3661	1.3661

#1	329.09	.00017	1.2235	.00225	.32408	.00659	.00514	.05580	.11940
#2	326.57	-0.00057	1.2209	.00068	.31700	.00785	.00325	.05473	.11712

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00966	2.0740	.00029	.00031	.00047	-0.02066	-0.00075	3.8189	.00094
Stddev	.00050	.0112	.00121	.00073	.00054	.01195	.00066	.0823	.00186
%RSD	5.2175	.54132	412.52	239.88	115.25	57.864	88.189	2.1556	197.84

#1	.00931	2.0820	-0.00056	.00082	.00085	-0.01221	-0.00028	3.8771	.00226
#2	.01002	2.0661	.00115	-0.00021	.00009	-0.02911	-0.00121	3.7607	-0.00038

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2947.5	50079.	6102.1
Stddev	6.7	238.	29.8
%RSD	.22814	.47558	.48817

#1	2952.2	49910.	6081.0
#2	2942.7	50247.	6123.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0014	.04108	-0.00028	.01028	.15783	-0.00021	-0.00261	5.0530	.03922
Stddev	.00033	.00032	.00207	.00036	.00036	.00003	.00040	.0041	.00032
%RSD	231.47	.77890	747.55	3.5307	.23092	13.051	15.383	.08161	.81624

#1	.00009	.04131	-.00174	.01003	.15809	-.00019	-.00232	5.0501	.03945
#2	-.00038	.04086	.00119	.01054	.15757	-.00023	-.00289	5.0559	.03899

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	W .33841	.00797	.06545	.52835	.00239	.17496	.01386	-0.00019
Stddev	.00015	.00131	.00002	.00165	.04565	.00093	.00160	.00005	.00019
%RSD	140.63	.38612	.28409	2.5169	8.6392	39.005	.91386	.38258	99.016

#1	.00000	.33934	.00799	.06662	.49607	.00173	.17383	.01390	-.00006
#2	.00021	.33749	.00796	.06429	.56063	.00305	.17609	.01382	-.00032

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	321.43	.00061	.75284	.00629	.20206	.00127	.00763	.11604	.24832
Stddev	1.03	.00002	.00596	.00004	.00353	.00016	.00122	.00484	.01036
%RSD	.32082	3.4321	.79209	.64636	1.7486	12.551	15.944	4.1701	4.1701

#1	322.16	.00062	.74863	.00626	.20456	.00138	.00849	.11262	.24100
#2	320.70	.00059	.75706	.00632	.19956	.00116	.00677	.11946	.25564

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00317	.94028	.00077	.00007	.00036	-0.01511	-0.00145	3.2168	.00036
Stddev	.00229	.00132	.00011	.00008	.00074	.00573	.00069	.0083	.00060
%RSD	72.316	.14009	14.633	116.68	207.68	37.925	47.807	.25671	169.78

#1	.00479	.94122	.00085	.00001	.00088	-.01106	-.00194	3.2110	-.00007
#2	.00155	.93935	.00069	.00012	-.00017	-.01917	-.00096	3.2227	.00078

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2972.1	50885.	6219.2
Stddev	9.0	530.	19.0
%RSD	.30203	1.0410	.30495

#1	2978.5	50510.	6232.6
#2	2965.8	51259.	6205.7

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00675	50.150	-0.00007	.00140	.00049	-0.00004	1.0418	.03475	-0.00044	-0.00035	.00064
Stddev	.00062	.165	.00218	.00021	.00038	.00020	.0005	.00516	.00013	.00038	.00004
%RSD	9.2218	.32957	3061.3	15.082	77.350	486.98	.05140	14.842	30.177	108.19	6.0828

#1	-0.00719	50.266	-0.00162	.00155	.00076	.00010	1.0414	.03840	-0.00053	-0.00062	.00061
#2	-0.00631	50.033	.00147	.00125	.00022	-0.00018	1.0422	.03110	-0.00034	-0.00008	.00067

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00023	50.583	.02162	-0.00022	.03723	-0.00130	-0.00037	250.55	.00211	.00578	-0.00038
Stddev	.00040	.616	.02282	.00064	.00030	.00006	.00002	.23	.00041	.00212	.00017
%RSD	170.41	1.2173	105.55	290.32	.79770	4.4359	5.6378	.09199	19.245	36.721	45.580

#1	-0.00005	50.148	.03776	.00023	.03702	-0.00134	-0.00038	250.71	.00182	.00428	-0.00050
#2	.00051	51.018	.00548	-0.00067	.03744	-0.00126	-0.00035	250.39	.00239	.00728	-0.00025

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.1004	-0.00748	.00790	-0.03360	-0.07191	-0.00140	.00059	5.0067	-0.01346	.00009	W 10.541
Stddev	.0355	.00274	.00191	.00127	.00271	.00029	.00006	.0147	.00030	.00039	.060
%RSD	.69588	36.576	24.173	3.7738	3.7738	20.487	10.684	.29335	2.2227	444.38	.56908

#1	5.0753	-0.00554	.00655	-0.03450	-0.07383	-0.00120	.00064	4.9963	-.01325	-.00019	10.498
#2	5.1255	-0.00941	.00925	-0.03271	-0.06999	-0.00160	.00055	5.0170	-.01367	.00036	10.583

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value											10.000
Range											5.00000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00258	.00023	-.12636
Stddev	.00008	.00074	.00178
%RSD	3.1289	314.87	1.4083

#1	.00263	.00075	-.12762
#2	.00252	-0.00029	-.12510

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2994.8	51158.	6093.7
Stddev	8.2	200.	39.8
%RSD	.27415	.39026	.65345

#1	3000.6	51300.	6065.5
#2	2989.0	51017.	6121.9

Sample Name: CCV-3296664 Acquired: 5/30/2015 15:07:16 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50495	.54545	1.0158	.52188	.49565	.49369	-.00111	5.0230	.51791	.51449	.51290	.50733	2.5080
Stddev	.00133	.00084	.0053	.00486	.00078	.00043	.00023	.0012	.00026	.00311	.00548	.00080	.0037
%RSD	.26300	.15408	.52080	.93096	.15692	.08780	20.405	.02406	.04978	.60451	1.0682	.15780	.14855
#1	.50589	.54485	1.0121	.51844	.49620	.49338	-.00126	5.0238	.51809	.51229	.50903	.50789	2.5107
#2	.50401	.54604	1.0196	.52531	.49510	.49400	-.00095	5.0221	.51773	.51669	.51678	.50676	2.5054

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.554	.99852	20.100	.50835	.50212	5.2049	.50755	1.0396	1.0145	.00191	1.0304	1.0115	4.9051
Stddev	.084	.00066	.018	.00199	.00277	.0279	.00488	.0117	.0073	.00013	.0034	.0062	.0561
%RSD	.16966	.06660	.09200	.39113	.55203	.53687	.96157	1.1272	.71556	6.6630	.33413	.60806	1.1438
#1	49.614	.99899	20.087	.50695	.50016	5.2247	.50410	1.0313	1.0093	.00182	1.0279	1.0072	4.9448
#2	49.495	.99805	20.113	.50976	.50408	5.1851	.51100	1.0479	1.0196	.00200	1.0328	1.0159	4.8654

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.497	1.0193	.49701	-.00175	.50431	1.0357	-.00853	.51181	.50385	.49216
Stddev	.120	.0079	.00060	.00167	.00201	.0123	.04666	.00253	.00187	.00440
%RSD	1.1438	.77690	.11975	95.439	.39819	1.1886	546.88	.49440	.37177	.89301
#1	10.582	1.0137	.49743	-.00293	.50289	1.0270	.02446	.51360	.50253	.49527
#2	10.412	1.0249	.49659	-.00057	.50573	1.0444	-.04153	.51002	.50518	.48905

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3013.2	51985.	6126.2
Stddev	4.6	250.	25.2
%RSD	.15162	.48076	.41156
#1	3016.4	52162.	6108.3
#2	3010.0	51808.	6144.0

Sample Name: CCB Acquired: 5/30/2015 15:09:46 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0008	.00035	-0.00151	.00223	-0.00030	-0.00021	-0.00041	.00057	.00009	.00020	-0.00037	-0.00035	-0.00177
Stddev	.00019	.00025	.00158	.00042	.00003	.00004	.00147	.00337	.00017	.00024	.00026	.00068	.00071
%RSD	238.74	71.550	104.90	18.985	8.7625	17.773	361.00	594.75	181.72	118.72	70.206	191.92	40.450
#1	.00006	.00053	-.00263	.00193	-.00028	-.00018	-.00145	.00295	-.00003	.00037	-.00019	.00013	-.00126
#2	-.00022	.00017	-.00039	.00253	-.00032	-.00023	.00063	-.00181	.00021	.00003	-.00056	-.00083	-.00227

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.02198	-0.00175	.00276	-0.00001	-0.00005	.09366	-0.00034	.00033	-0.00095	-0.00230	.00025	.00447	-0.01736
Stddev	.00603	.00168	.00326	.00003	.00002	.00257	.00011	.00089	.00018	.00089	.00300	.00136	.01084
%RSD	27.418	96.150	118.13	452.25	35.965	2.7461	33.005	266.04	18.983	38.655	1181.7	30.443	62.428
#1	-.02624	-.00294	.00045	.00002	-.00006	.09184	-.00043	-.00029	-.00108	-.00293	-.00187	.00543	-.00970
#2	-.01772	-.00056	.00507	-.00003	-.00004	.09548	-.00026	.00096	-.00082	-.00167	.00237	.00351	-.02503

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.03716	.00080	.00004	.00346	.00044	.00084	-0.03136	.00010	.00010	-0.00036
Stddev	.02320	.00115	.00004	.00131	.00028	.00247	.00604	.00010	.00005	.00017
%RSD	62.428	142.96	99.661	37.848	63.954	293.53	19.264	100.04	51.047	46.604
#1	-.02075	-.00001	.00001	.00253	.00063	.00259	-.03563	.00003	.00013	-.00024
#2	-.05356	.00162	.00008	.00439	.00024	-.00090	-.02709	.00017	.00006	-.00048

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3042.7	52281.	6030.0
Stddev	5.5	293.	49.3
%RSD	.18193	.55968	.81695
#1	3038.8	52074.	6064.9
#2	3046.6	52487.	5995.2

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01038	.11030	.01550	.10723	.00988	.00088	.10845	.20559	.00542	.01075	.01076	.01576
Stddev	.00095	.00042	.00032	.00116	.00008	.00002	.00222	.00274	.00000	.00028	.00026	.00031
%RSD	9.1720	.37895	2.0945	1.0833	.78649	2.0148	2.0478	1.3326	.00871	2.5860	2.4344	1.9491

#1	.00971	.11000	.01527	.10640	.00993	.00086	.10688	.20752	.00542	.01094	.01095	.01555
#2	.01106	.11059	.01573	.10805	.00982	.00089	.11002	.20365	.00542	.01055	.01058	.01598

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10060	3.0275	.00951	.21621	.01092	.02027	1.0993	.04244	3.0731	.00867	-.00107	.00969
Stddev	.00022	.0229	.00010	.00022	.00011	.00033	.0199	.00030	.0187	.00135	.00341	.00170
%RSD	.21816	.75659	1.0937	.10127	.99147	1.6241	1.8145	.70454	.60950	15.540	318.31	17.578

#1	.10076	3.0437	.00958	.21606	.01099	.02004	1.1134	.04223	3.0598	.00962	.00134	.01090
#2	.10045	3.0113	.00944	.21637	.01084	.02050	1.0852	.04265	3.0863	.00772	-.00348	.00849

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01542	46444	.99390	.10574	.01024	.01724	.01024	.01630	F .02999	.01004	.02290	.01365
Stddev	.00062	.01226	.02623	.00178	.00002	.00055	.00003	.00047	.01896	.00048	.00006	.00124
%RSD	4.0037	2.6395	2.6395	1.6865	.15448	3.1981	.29894	2.8579	63.239	4.7566	.27141	9.0850

#1	.01498	.45577	.97535	.10448	.01025	.01763	.01026	.01597	.01658	.00970	.02286	.01453
#2	.01586	.47311	1.0124	.10700	.01023	.01685	.01022	.01663	.04340	.01038	.02295	.01278

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass							
Value									.06000			
Range									-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3054.8	52350.	6128.1
Stddev	10.1	127.	13.4
%RSD	.33013	.24323	.21843

#1	3047.6	52260.	6137.5
#2	3061.9	52440.	6118.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00019	.00778	.00004	.00871	.04747	-.00012	.00080	1.9929	.01213
Stddev	.00015	.00031	.00166	.00032	.00021	.00014	.00181	.0232	.00003
%RSD	79.390	3.9597	4322.2	3.6307	.44071	116.14	227.41	1.1637	.23949

#1	.00008	.00799	-.00114	.00893	.04762	-.00002	-.00049	1.9765	.01211
#2	.00029	.00756	.00121	.00849	.04732	-.00022	.00208	2.0093	.01215

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00047	.00010	.00263	.01272	.02581	-.00063	.03796	.00088	-.00021
Stddev	.00030	.00008	.00089	.00260	.02621	.00046	.00124	.00004	.00002
%RSD	63.287	81.490	33.739	20.465	101.53	72.644	3.2598	4.4140	10.082

#1	-.00068	.00004	.00201	.01088	.00728	-.00096	.03883	.00091	-.00019
#2	-.00026	.00015	.00326	.01456	.04434	-.00031	.03708	.00085	-.00022

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	323.57	.00073	.11170	-.00134	.02870	-.00385	.00093	.00338	.00723
Stddev	2.02	.00012	.00129	.00213	.00274	.00045	.00077	.01105	.02364
%RSD	.62572	16.199	1.1564	158.43	9.5458	11.707	83.216	327.15	327.15

#1	322.14	.00065	.11079	.00016	.03063	-.00417	.00148	-.00443	-.00949
#2	325.00	.00082	.11261	-.00285	.02676	-.00353	.00038	.01119	.02394

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00247	.00242	.00225	.00002	-.00106	-.03993	-.00094	.15284	-.00095
Stddev	.00131	.00009	.00031	.00035	.00134	.00579	.00047	.00199	.00216
%RSD	52.965	3.5582	13.591	2199.3	125.87	14.494	50.551	1.2990	228.00

#1	.00339	.00236	.00203	.00026	-.00201	-.04402	-.00127	.15424	-.00248
#2	.00154	.00248	.00247	-.00023	-.00012	-.03584	-.00060	.15143	.00058

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2931.3	49896.	6054.6
Stddev	1.4	279.	44.6
%RSD	.04784	.55885	.73735

#1	2930.3	49699.	6086.2
#2	2932.3	50093.	6023.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00005	.01133	-.00210	.04015	.08896	-.00025	-.00300	4.1195	.00008
Stddev	.00006	.00002	.00114	.00016	.00014	.00003	.00108	.0214	.00022
%RSD	125.45	.20413	54.439	.41061	.15838	13.794	36.160	.52004	290.51

#1	.00001	.01131	-.00129	.04026	.08906	-.00027	-.00376	4.1044	-.00008
#2	.00009	.01135	-.00291	.04003	.08886	-.00023	-.00223	4.1347	.00023

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00055	.00025	.00828	.03467	.14954	.00024	.09024	.00186	-.00052
Stddev	.00027	.00012	.00062	.00004	.00342	.00110	.00197	.00003	.00008
%RSD	49.897	46.085	7.4942	.11462	2.2892	467.18	2.1845	1.7854	15.104

#1	-.00075	.00017	.00784	.03464	.15196	.00101	.09164	.00184	-.00047
#2	-.00036	.00034	.00871	.03470	.14712	-.00054	.08885	.00189	-.00058

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	316.32	.00098	.16353	-.00050	.02312	-.00213	.00027	.02166	.04635
Stddev	.06	.00011	.00039	.00043	.00233	.00025	.00380	.01085	.02323
%RSD	.02032	10.905	.23853	85.761	10.096	11.683	1429.4	50.110	50.110

#1	316.37	.00090	.16380	-.00020	.02147	-.00230	-.00242	.01399	.02993
#2	316.28	.00106	.16325	-.00080	.02477	-.00195	.00295	.02933	.06278

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00179	.00616	-.00065	.00054	-.00111	-.02107	-.00151	.45834	-.00203
Stddev	.00007	.00008	.00094	.00000	.00077	.04194	.00060	.00154	.00237
%RSD	3.7245	1.2867	145.47	.46972	69.915	199.06	39.924	.33607	116.92

#1	.00174	.00622	.00002	.00054	-.00165	-.05072	-.00109	.45943	-.00035
#2	.00184	.00611	-.00131	.00054	-.00056	.00859	-.00194	.45725	-.00370

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2963.1	50535.	6185.2
Stddev	2.0	19.	39.4
%RSD	.06624	.03777	.63728

#1	2964.5	50548.	6213.0
#2	2961.7	50521.	6157.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00032	.01167	.00206	.04592	.04421	-.00011	-.00093	2.4701	.01847
Stddev	.00046	.00065	.00060	.00120	.00018	.00009	.00020	.0401	.00008
%RSD	142.55	5.5704	29.326	2.6161	.41306	76.055	21.655	1.6246	.42346

#1	.00000	.01213	.00248	.04507	.04408	-.00005	-.00108	2.4417	.01852
#2	.00065	.01121	.00163	.04677	.04434	-.00018	-.00079	2.4984	.01841

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00042	.00049	.00891	.00991	.13397	.00053	.14828	.00229	-.00005
Stddev	.00014	.00003	.00039	.00012	.00283	.00075	.00110	.00003	.00041
%RSD	32.089	6.2664	4.4142	1.2398	2.1101	142.06	.74151	1.2704	766.56

#1	-.00033	.00051	.00919	.00982	.13197	.00105	.14906	.00227	.00023
#2	-.00052	.00047	.00863	.00999	.13597	.00000	.14751	.00231	-.00034

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	333.75	.00126	.16716	-.00028	.04717	-.00158	.00326	-.00413	-.00884
Stddev	1.83	.00033	.00189	.00084	.00397	.00221	.00348	.00324	.00692
%RSD	.54812	25.951	1.1315	296.35	8.4239	139.83	106.77	78.349	78.349

#1	332.46	.00149	.16850	-.00087	.04436	-.00002	.00080	-.00184	-.00394
#2	335.05	.00103	.16583	.00031	.04998	-.00315	.00571	-.00642	-.01373

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00077	.00432	.00352	.00019	.00035	-.03491	-.00133	.14699	-.00064
Stddev	.00103	.00012	.00025	.00002	.00168	.01904	.00012	.00181	.00019
%RSD	134.49	2.8763	6.9757	8.4576	480.26	54.537	8.9323	1.2298	30.235

#1	.00150	.00423	.00369	.00018	-.00084	-.02144	-.00141	.14827	-.00050
#2	.00004	.00441	.00334	.00020	.00154	-.04837	-.00124	.14571	-.00077

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2921.6	50353.	6188.6
Stddev	13.5	232.	52.7
%RSD	.46184	.45994	.85228

#1	2912.0	50517.	6225.9
#2	2931.1	50189.	6151.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00057	.00816	-0.00121	.07502	.06915	-0.00017	-0.00195	5.6003	.04506
Stddev	.00008	.00020	.00013	.00043	.00026	.00005	.00009	.0263	.00044
%RSD	13.216	2.4308	10.650	.56757	.38098	27.499	4.7160	.47026	.97486

#1	-0.00063	.00802	-0.00130	.07472	.06897	-0.00020	-0.00202	5.5817	.04475
#2	-0.00052	.00830	-0.00112	.07532	.06934	-0.00014	-0.00189	5.6189	.04537

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00054	.00056	.12053	.00657	.17155	-0.00076	.13747	.00567	-0.00037
Stddev	.00007	.00025	.00043	.00017	.03551	.00119	.00354	.00012	.00067
%RSD	13.251	45.143	.35481	2.5886	20.697	156.17	2.5742	2.0888	181.84

#1	-0.00059	.00074	.12083	.00645	.14645	-0.00160	.13497	.00558	.00011
#2	-0.00049	.00038	.12023	.00669	.19666	.00008	.13998	.00575	-.00084

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	337.09	.00512	.18727	.00046	.04903	.00427	.00187	.00499	.01067
Stddev	1.79	.00008	.00334	.00010	.00789	.00149	.00287	.01020	.02183
%RSD	.53071	1.5476	1.7853	21.603	16.084	34.812	153.48	204.55	204.55

#1	335.83	.00517	.18491	.00039	.04345	.00532	.00391	.01220	.02611
#2	338.36	.00506	.18964	.00054	.05460	.00322	-.00016	-.00223	-.00476

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00063	.00576	.00167	-.00001	-.00262	-.02169	-.00134	.28700	-.00070
Stddev	.00130	.00010	.00372	.00027	.00074	.00861	.00033	.00026	.00050
%RSD	206.80	1.6856	222.39	4676.5	28.193	39.714	24.410	.09109	71.456

#1	-0.00029	.00569	-0.00096	-.00020	-.00210	-.01560	-.00111	.28682	-.00105
#2	.00155	.00583	.00430	.00019	-.00315	-.02778	-.00158	.28719	-.00034

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2985.4	50828.	6241.4
Stddev	12.3	196.	27.6
%RSD	.41238	.38596	.44170

#1	2976.7	50690.	6221.9
#2	2994.1	50967.	6260.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00054	.01811	-.00090	.03554	.09493	-.00021	-.00088	4.1453	.00028
Stddev	.00100	.00013	.00227	.00002	.00044	.00003	.00060	.0341	.00019
%RSD	187.32	.69296	250.56	.05719	.45847	13.389	68.708	.82353	66.996

#1	.00125	.01802	.00070	.03555	.09524	-.00019	-.00130	4.1211	.00041
#2	-.00017	.01820	-.00251	.03552	.09462	-.00023	-.00045	4.1694	.00015

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00052	.00027	.00416	.13554	.15124	.00084	.10998	.00216	-.00055
Stddev	.00004	.00007	.00036	.00082	.00004	.00102	.00170	.00008	.00013
%RSD	7.5308	25.470	8.6335	.60831	.02876	120.43	1.5471	3.5119	23.577

#1	-.00055	.00022	.00441	.13496	.15121	.00156	.11118	.00210	-.00064
#2	-.00049	.00032	.00390	.13612	.15127	.00013	.10878	.00221	-.00046

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	320.33	.00246	.16223	.00062	.07222	-.00261	.00295	.00772	.01651
Stddev	1.48	.00031	.00035	.00152	.00042	.00084	.00415	.01185	.02537
%RSD	.46083	12.631	.21521	247.17	.57934	32.343	140.78	153.63	153.63

#1	321.37	.00268	.16248	.00169	.07192	-.00202	.00588	-.00067	-.00143
#2	319.28	.00224	.16199	-.00046	.07251	-.00321	.00001	.01610	.03445

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00078	.00376	.00013	.00010	-.00086	-.02343	-.00155	.23495	-.00021
Stddev	.00101	.00014	.00180	.00003	.00242	.03054	.00030	.00089	.00095
%RSD	129.56	3.6245	1419.0	26.275	281.50	130.37	19.264	.37882	464.14

#1	.00149	.00367	.00140	.00012	-.00258	-.00183	-.00133	.23558	-.00088
#2	.00007	.00386	-.00115	.00008	.00085	-.04502	-.00176	.23432	.00047

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2960.3	51039.	6247.5
Stddev	6.1	252.	10.2
%RSD	.20751	.49422	.16401

#1	2964.7	50860.	6254.8
#2	2956.0	51217.	6240.3

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00740	49.520	-0.00487	.00125	.00053	-0.00001	1.0423	.03110	-0.00011	-0.00041	.00075
Stddev	.00047	.427	.00057	.00067	.00012	.00007	.0051	.00066	.00006	.00045	.00012
%RSD	6.3270	.86205	11.796	53.451	22.328	1181.6	.48534	2.1063	59.231	110.32	16.439

#1	-0.00707	49.218	-0.00446	.00077	.00045	-0.00005	1.0387	.03156	-0.00006	-0.00009	.00084
#2	-0.00773	49.822	-0.00528	.00172	.00062	.00004	1.0458	.03064	-0.00015	-0.00073	.00066

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00001	49.079	.02482	-0.00076	.04181	-0.00157	-0.00031	246.48	.00195	.00847	-0.00184
Stddev	.00040	.346	.03129	.00020	.00225	.00005	.00047	.50	.00031	.00079	.00081
%RSD	4346.9	.70399	126.07	27.055	5.3772	3.4127	152.62	.20211	16.108	9.3550	44.289

#1	.00029	49.323	.04694	-0.00090	.04340	-0.00153	.00002	246.13	.00173	.00791	-0.00241
#2	-0.00027	48.835	.00269	-0.00061	.04022	-0.00161	-0.00065	246.84	.00217	.00903	-0.00126

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.0901	-0.00951	.01093	-0.03805	-0.08143	-0.00071	.00040	5.0115	-0.01318	.00138	W 10.600
Stddev	.0180	.00185	.00093	.00368	.00788	.00075	.00011	.0092	.00041	.00131	.070
%RSD	.35296	19.413	8.5064	9.6743	9.6743	105.66	27.237	.18250	3.0761	94.828	.65580

#1	5.0774	-.01081	.01028	-0.03545	-0.07586	-0.00125	.00047	5.0180	-.01289	.00231	10.649
#2	5.1028	-.00820	.01159	-0.04065	-0.08700	-0.00018	.00032	5.0051	-.01346	.00046	10.551

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value											10.000
Range											5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00253	-0.00040	-.13035
Stddev	.00003	.00024	.00206
%RSD	1.1685	59.853	1.5785

#1	.00255	-.00023	-.12889
#2	.00251	-.00056	-.13180

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3012.6	51066.	6094.9
Stddev	3.8	122.	28.6
%RSD	.12650	.23947	.46851

#1	3015.3	50979.	6074.7
#2	3009.9	51152.	6115.1

Sample Name: CCV-3296664 Acquired: 5/30/2015 15:31:24 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50128	.54428	1.0130	.52262	.49294	.48939	-.00106	4.9634	.51459	.51491	.51572	.50712	2.4794
Stddev	.00096	.00110	.0069	.00106	.00301	.00151	.00302	.0330	.00101	.00511	.00378	.00194	.0094
%RSD	.19162	.20129	.68457	.20311	.61095	.30865	283.20	.66393	.19711	.99247	.73379	.38228	.38009

#1	.50196	.54505	1.0179	.52337	.49507	.49046	.00107	4.9867	.51531	.51852	.51839	.50849	2.4860
#2	.50061	.54350	1.0081	.52187	.49081	.48832	-.00320	4.9401	.51387	.51130	.51304	.50575	2.4727

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.263	.98902	20.029	.51035	.50250	5.1842	.50751	1.0473	1.0120	.00561	1.0292	1.0214	4.8793
Stddev	.114	.00208	.036	.00017	.00604	.0368	.00548	.0085	.0098	.00567	.0089	.0104	.0269
%RSD	.23153	.21071	.18175	.03428	1.2013	.71008	1.0794	.81095	.96617	101.24	.86878	1.0134	.55175

#1	49.344	.99049	20.055	.51023	.50677	5.2102	.51139	1.0533	1.0189	.00962	1.0355	1.0287	4.8984
#2	49.183	.98755	20.004	.51048	.49823	5.1581	.50364	1.0413	1.0051	.00159	1.0229	1.0141	4.8603

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.442	1.0180	.49467	.00090	.50504	1.0374	-.05315	.51791	.50001	.48817
Stddev	.058	.0129	.00290	.00062	.00009	.0117	.00136	.00185	.00165	.00553
%RSD	.55175	1.2639	.58720	69.301	.01822	1.1240	2.5498	.35635	.33015	1.1325

#1	10.483	1.0271	.49672	.00046	.50498	1.0456	-.05411	.51922	.50117	.49208
#2	10.401	1.0089	.49261	.00134	.50511	1.0291	-.05220	.51661	.49884	.48426

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3028.0	51997.	6193.3
Stddev	1.3	42.	9.9
%RSD	.04180	.08059	.16046

#1	3027.1	52026.	6186.3
#2	3028.9	51967.	6200.3

Sample Name: CCB Acquired: 5/30/2015 15:33:53 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.00017	-0.00075	.00041	-0.00013	-0.00015	-0.00048	.00046	-0.00037	-0.00011	-0.00028	-0.00011	-0.00168
Stddev	.00031	.00035	.00002	.00054	.00007	.00000	.00056	.00027	.00006	.00028	.00002	.00058	.00120
%RSD	533.99	203.24	2.1947	130.81	50.577	3.1608	116.61	58.920	15.968	264.17	7.7054	545.13	71.219
#1	.00028	-0.00007	-0.00074	.00079	-0.00018	-0.00015	-0.00008	.00027	-0.00042	-0.00030	-0.00030	.00030	-0.00252
#2	-0.00016	.00041	-0.00076	.00003	-0.00009	-0.00014	-0.00087	.00066	-0.00033	.00009	-0.00027	-0.00052	-0.00083

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.05937	-0.00188	.00129	-0.00002	.00043	.09040	-0.00008	.00067	-0.00134	.00310	-0.00231	.00176	-0.02315
Stddev	.05230	.00026	.00063	.00009	.00002	.00314	.00012	.00055	.00154	.00019	.00008	.00361	.00376
%RSD	88.096	13.892	48.662	498.40	5.0844	3.4706	153.62	82.499	114.80	6.2675	3.3248	205.91	16.255
#1	-0.02239	-0.00206	.00174	.00004	.00045	.08818	-0.00017	.00028	-0.00243	.00323	-0.00236	.00431	-0.02049
#2	-0.09635	-0.00169	.00085	-0.00008	.00041	.09262	.00001	.00106	-0.00025	.00296	-0.00226	-0.00080	-0.02581

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.04954	.00021	.00014	.00174	-0.00023	-0.00167	-0.01055	-0.00053	.00030	-0.00010
Stddev	.00805	.00094	.00001	.00103	.00046	.00310	.02966	.00040	.00085	.00159
%RSD	16.255	457.80	4.9727	59.393	202.33	185.20	281.29	75.753	283.78	1643.7
#1	-0.04384	-0.00046	.00013	.00101	.00010	-0.00387	-0.03152	-0.00081	.00090	.00103
#2	-0.05523	.00087	.00014	.00247	-0.00056	.00052	.01043	-0.00025	-0.00030	-0.00122

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3068.6	52925.	6164.7
Stddev	19.0	27.	83.0
%RSD	.61763	.05060	1.3472
#1	3055.2	52944.	6106.0
#2	3082.0	52906.	6223.4

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00952	.10887	.01671	.10710	.01010	.00085	.10653	.20787	.00515	.01071	.01059	.01537
Stddev	.00068	.00095	.00200	.00095	.00003	.00007	.00331	.00579	.00005	.00010	.00012	.00051
%RSD	7.1318	.86987	11.943	.88902	.26872	8.1307	3.1094	2.7852	.92846	.89195	1.1401	3.3286

#1	.01000	.10954	.01530	.10642	.01012	.00090	.10419	.21196	.00518	.01064	.01050	.01574
#2	.00904	.10820	.01812	.10777	.01008	.00080	.10887	.20378	.00511	.01078	.01067	.01501

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10163	3.0476	F .00641	.21025	.01073	.02021	1.1232	.04114	3.0609	.00904	.00077	.00782
Stddev	.00146	.0262	.00063	.00063	.00000	.00017	.0128	.00005	.0046	.00212	.00291	.00020
%RSD	1.4410	.86115	9.8017	.29919	.03633	.84938	1.1373	.13313	.14939	23.515	377.33	2.5277

#1	.10060	3.0662	.00597	.21069	.01074	.02033	1.1322	.04117	3.0577	.01054	-.00129	.00796
#2	.10267	3.0291	.00686	.20980	.01073	.02008	1.1142	.04110	3.0642	.00753	.00283	.00768

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			-30.000%									

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01568	.47103	1.0080	.10371	.01039	.01847	.01017	.01473	F .03466	.00934	.02188	.01431
Stddev	.00027	.02479	.0531	.00053	.00013	.00362	.00051	.00250	.01796	.00023	.00052	.00071
%RSD	1.7200	5.2633	5.2633	.51433	1.2804	19.580	4.9798	16.960	51.817	2.4326	2.3631	4.9940

#1	.01587	.45350	.97048	.10408	.01030	.01591	.00981	.01649	.02196	.00918	.02224	.01482
#2	.01549	.48856	1.0455	.10333	.01049	.02102	.01053	.01296	.04736	.00950	.02151	.01381

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass							
Value									.06000			
Range									-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3077.0	52921.	6218.7
Stddev	25.3	134.	14.9
%RSD	.82085	.25228	.23906

#1	3059.1	52827.	6229.2
#2	3094.8	53015.	6208.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0030	.01757	-0.00163	.00100	.00043	-0.0014	-0.00238	W .12063	-0.0017
Stddev	.00026	.00031	.00502	.00045	.00012	.00001	.00013	.00089	.00009
%RSD	86.993	1.7640	308.11	45.440	27.583	8.7600	5.2899	.73966	50.843

#1	-0.0012	.01735	-0.00518	.00132	.00051	-0.0013	-0.00247	.12126	-0.0011
#2	-0.0049	.01779	.00192	.00068	.00035	-0.0015	-0.00229	.12000	-0.0024

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								.10000	
Low Limit								-.10000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	-0.00002	F .03363	.01779	-0.04513	-0.00321	.00954	.00022	.00012
Stddev	.00016	.00017	.00008	.00149	.01228	.00134	.00069	.00001	.00019
%RSD	908.46	1002.7	.22692	8.4022	27.219	41.666	7.2317	5.7035	150.13

#1	-0.0009	.00010	.03368	.01673	-.05382	-.00226	.01002	.00023	-0.0001
#2	.00013	-.00013	.03358	.01885	-.03645	-.00415	.00905	.00021	.00025

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass					
High Limit			.01500						
Low Limit			-.01500						

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04517	-0.00077	.00212	.00016	.00361	-0.00352	.00139	.00510	.01092
Stddev	.00314	.00010	.00007	.00256	.00761	.00138	.00105	.02553	.05463
%RSD	6.9456	13.353	3.3803	1640.8	210.88	39.149	75.753	500.45	500.45

#1	.04295	-.00084	.00217	-.00165	.00899	-.00255	.00213	-.01295	-.02771
#2	.04739	-.00069	.00207	.00196	-.00177	-.00450	.00065	.02315	.04954

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00052	.00028	.00347	.00023	-0.00073	-0.03483	-0.00012	.00145	-0.00071
Stddev	.00099	.00003	.00147	.00010	.00101	.01345	.00026	.00004	.00040
%RSD	191.22	10.873	42.292	44.766	138.43	38.609	226.08	2.9659	55.968

#1	.00121	.00030	.00450	.00016	-.00144	-.04434	-.00030	.00142	-.00100
#2	-.00018	.00026	.00243	.00030	-.00002	-.02532	.00007	.00148	-.00043

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3054.2	52953.	6258.1
Stddev	1.8	155.	29.5
%RSD	.05910	.29232	.47090

#1	3052.9	52844.	6279.0
#2	3055.5	53063.	6237.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04615	2.0835	1.0225	1.0746	1.9773	.04885	2.0409	48.440	.10468
Stddev	.00019	.0085	.0096	.0016	.0038	.00043	.0061	.063	.00049
%RSD	.40999	.40650	.94302	.14702	.19269	.88345	.29800	.13066	.46806

#1	.04629	2.0775	1.0157	1.0735	1.9746	.04915	2.0366	48.395	.10433
#2	.04602	2.0895	1.0293	1.0757	1.9800	.04854	2.0452	48.485	.10502

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50075	F .19998	F .28761	.98719	49.635	.98981	49.761	.51069	1.0484
Stddev	.00186	.00049	.00185	.00766	.036	.00048	.097	.00036	.0025
%RSD	.37229	.24465	.64192	.77631	.07166	.04867	.19427	.07005	.23646

#1	.49943	.19963	.28891	.99261	49.610	.99015	49.830	.51044	1.0467
#2	.50207	.20032	.28630	.98178	49.660	.98947	49.693	.51094	1.0502

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass					
High Limit		.05750	.28000						
Low Limit		.04275	.21500						

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	53.124	.49505	10.787	.50556	2.0815	W .54316	2.1199	9.8745	21.131
Stddev	.566	.00094	.042	.00071	.0064	.00270	.0169	.0113	.024
%RSD	1.0650	.18964	.39153	.14142	.30557	.49683	.79809	.11411	.11411

#1	53.524	.49438	10.757	.50607	2.0770	.54507	2.1319	9.8824	21.148
#2	52.724	.49571	10.817	.50506	2.0860	.54125	2.1080	9.8665	21.114

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Warn	Chk Pass	Chk Pass	None
High Limit						.54000			
Low Limit						.44000			

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0662	.99074	1.0208	1.0230	2.0709	2.1417	.52201	.49906	.46785
Stddev	.0063	.00122	.0005	.0008	.0012	.0101	.00129	.00055	.00050
%RSD	.30452	.12277	.05083	.07449	.05792	.47361	.24789	.11111	.10583

#1	2.0706	.98988	1.0212	1.0225	2.0718	2.1345	.52110	.49946	.46820
#2	2.0617	.99160	1.0204	1.0236	2.0701	2.1489	.52293	.49867	.46750

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2954.8	51009.	6213.3
Stddev	9.7	124.	1.5
%RSD	.32661	.24229	.02401

#1	2961.6	51097.	6214.3
#2	2948.0	50922.	6212.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0007	.06063	-0.00186	.00948	.03660	-0.00002	-0.00202	.70924	.00011
Stddev	.00028	.00009	.00422	.00049	.00018	.00001	.00027	.00646	.00014
%RSD	386.92	.15282	226.72	5.1770	.48503	38.940	13.532	.91131	129.98

#1	-0.0027	.06057	-0.00484	.00983	.03647	-0.00001	-0.00221	.70467	.00021
#2	.00013	.06070	.00112	.00914	.03672	-0.00002	-0.00182	.71381	.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	.00102	-0.00015	.15754	.56897	.00985	.53617	.01756	.00052
Stddev	.00031	.00011	.00007	.00347	.04165	.00080	.00989	.00020	.00008
%RSD	267.56	10.633	46.441	2.2046	7.3208	8.1379	1.8438	1.1589	15.533

#1	.00033	.00110	-0.00010	.15509	.53951	.00928	.52918	.01742	.00058
#2	-0.00010	.00094	-0.00020	.16000	.59842	.01041	.54316	.01771	.00047

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.798	.00331	.00634	-0.00166	7.9252	-0.00111	.00071	16.074	34.399
Stddev	.929	.00013	.00126	.00039	.1478	.00107	.00237	.632	1.353
%RSD	3.7445	3.8192	19.926	23.624	1.8652	96.214	334.79	3.9335	3.9335

#1	24.141	.00322	.00545	-0.00138	8.0297	-0.00035	.00238	15.627	33.442
#2	25.454	.00340	.00723	-0.00193	7.8206	-0.00187	-0.00097	16.521	35.356

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00073	.00440	.00301	.00108	-0.00213	-0.02400	-0.00078	.00725	-0.00061
Stddev	.00038	.00001	.00096	.00003	.00039	.00441	.00059	.00002	.00135
%RSD	51.438	.28706	31.956	2.6588	18.056	18.394	76.028	.21855	220.99

#1	.00100	.00439	.00369	.00110	-0.00186	-0.02712	-0.00036	.00726	.00034
#2	.00047	.00441	.00233	.00106	-0.00241	-0.02087	-0.00120	.00724	-0.00156

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3048.2	52614.	6331.9
Stddev	9.5	104.	19.4
%RSD	.31157	.19714	.30620

#1	3041.5	52541.	6345.6
#2	3054.9	52687.	6318.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.01382	.00183	.00302	.00736	-.00013	.00049	.14760	-.00034
Stddev	.00034	.00024	.00021	.00020	.00001	.00007	.00189	.00265	.00001
%RSD	3068.7	1.7658	11.712	6.5827	.14732	51.161	384.03	1.7960	1.5244

#1	-.00023	.01365	.00198	.00316	.00735	-.00017	-.00085	.14573	-.00033
#2	.00025	.01399	.00168	.00288	.00737	-.00008	.00183	.14948	-.00034

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.00019	-.00060	.03337	.06369	.00088	.10842	.00361	.00006
Stddev	.00022	.00006	.00029	.00087	.01419	.00172	.00020	.00002	.00033
%RSD	899.89	32.610	47.410	2.6149	22.277	195.85	.18697	.62135	526.88

#1	-.00013	.00023	-.00040	.03275	.05366	-.00034	.10828	.00359	-.00017
#2	.00018	.00014	-.00080	.03399	.07373	.00209	.10857	.00362	.00029

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.4948	.00007	.00384	.00007	1.6152	-.00347	-.00221	3.1572	6.7564
Stddev	.0068	.00021	.00001	.00146	.0343	.00097	.00577	.0100	.0213
%RSD	.15136	301.06	.23950	1977.8	2.1233	28.025	260.94	.31521	.31521

#1	4.4900	.00021	.00383	.00111	1.5910	-.00278	.00187	3.1502	6.7414
#2	4.4996	-.00008	.00384	-.00096	1.6395	-.00416	-.00630	3.1642	6.7715

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00025	.00091	.00168	.00031	-.00058	-.01831	-.00012	.00180	-.00023
Stddev	.00173	.00002	.00072	.00012	.00005	.00534	.00011	.00025	.00206
%RSD	684.59	2.0761	42.748	40.791	7.7797	29.157	88.019	13.861	913.45

#1	.00097	.00089	.00117	.00022	-.00061	-.01453	-.00005	.00198	.00123
#2	-.00148	.00092	.00219	.00039	-.00055	-.02208	-.00019	.00163	-.00168

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3071.6	53022.	6317.7
Stddev	10.2	581.	2.4
%RSD	.33275	1.0953	.03762

#1	3078.8	53433.	6319.4
#2	3064.4	52611.	6316.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04505	2.0558	1.0115	1.0628	1.9660	.04783	F 2.0177	47.915	.10408
Stddev	.00003	.0090	.0027	.0009	.0102	.00026	.0039	.281	.00014
%RSD	.07429	.43856	.26654	.08477	.51757	.54838	.19319	.58748	.13126

#1	.04507	2.0622	1.0134	1.0635	1.9588	.04765	2.0205	47.716	.10418
#2	.04502	2.0494	1.0096	1.0622	1.9732	.04802	2.0150	48.114	.10399

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49244	W .19818	.25294	1.0807	48.997	.97740	49.444	.51720	1.0263
Stddev	.00017	.00086	.00056	.0086	.346	.00752	.015	.00072	.0010
%RSD	.03516	.43435	.22176	.79188	.70556	.76977	.02934	.13943	.10196

#1	.49231	.19757	.25334	1.0746	48.753	.97208	49.434	.51669	1.0271
#2	.49256	.19878	.25254	1.0867	49.242	.98272	49.455	.51771	1.0256

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	74.565	.48832	W 10.610	.49543	9.9020	.52946	2.0882	25.144	53.808
Stddev	.637	.00019	.015	.00420	.0009	.00046	.0194	.183	.391
%RSD	.85387	.03874	.14327	.84779	.00904	.08775	.92776	.72637	.72637

#1	74.115	.48845	10.621	.49840	9.9026	.52979	2.0745	25.015	53.532
#2	75.015	.48819	10.600	.49246	9.9014	.52913	2.1019	25.273	54.085

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2.0332	.97082	1.0089	1.0081	2.0308	2.0669	.51229	.48860	.45029
Stddev	.0186	.00526	.0038	.0025	.0252	.0008	.00173	.00290	.00547
%RSD	.91383	.54224	.37375	.24796	1.2392	.03839	.33810	.59376	1.2141

#1	2.0201	.96710	1.0063	1.0063	2.0130	2.0664	.51106	.48655	.44642
#2	2.0463	.97454	1.0116	1.0098	2.0486	2.0675	.51351	.49065	.45415

Check ?	Chk Warn	Chk Pass							
High Limit	2.0000								
Low Limit	-.05000								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2967.7	51203.	6251.9
Stddev	10.0	169.	22.5
%RSD	.33643	.33054	.35972

#1	2960.7	51323.	6267.8
#2	2974.8	51084.	6236.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04434	2.0424	.99935	1.0556	1.9538	.04804	F 1.9955	47.631	.10265
Stddev	.00052	.0032	.00548	.0001	.0083	.00009	.0007	.155	.00026
%RSD	1.1644	.15675	.54835	.00727	.42561	.17718	.03713	.32452	.25434

#1	.04398	2.0447	1.0032	1.0557	1.9597	.04810	1.9950	47.740	.10283
#2	.04471	2.0402	.99548	1.0556	1.9479	.04798	1.9960	47.522	.10246

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48456	W .19573	.24941	1.0887	48.723	.97169	48.813	.51097	1.0156
Stddev	.00122	.00018	.00078	.0129	.207	.00321	.057	.00166	.0008
%RSD	.25227	.09014	.31303	1.1818	.42412	.33034	.11622	.32520	.07470

#1	.48542	.19586	.24996	1.0978	48.869	.97396	48.853	.50980	1.0162
#2	.48369	.19561	.24885	1.0796	48.576	.96942	48.773	.51215	1.0151

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	74.643	.48153	W 10.476	.48543	9.8425	.52492	2.0510	25.395	54.344
Stddev	.681	.00054	.030	.00079	.0343	.00307	.0060	.088	.188
%RSD	.91181	.11254	.28638	.16376	.34852	.58478	.29357	.34630	.34630

#1	75.125	.48191	10.497	.48599	9.8667	.52709	2.0552	25.457	54.477
#2	74.162	.48114	10.455	.48487	9.8182	.52275	2.0467	25.332	54.211

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9880	.96512	.99397	.99764	1.9838	2.0509	.50412	.48377	.45509
Stddev	.0018	.00343	.00093	.00209	.0004	.0192	.00087	.00164	.00102
%RSD	.08812	.35522	.09346	.20959	.01989	.93583	.17297	.33888	.22356

#1	1.9893	.96754	.99463	.99616	1.9841	2.0373	.50351	.48493	.45437
#2	1.9868	.96269	.99332	.99911	1.9835	2.0645	.50474	.48261	.45581

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2966.1	51334.	6213.1
Stddev	2.7	163.	42.6
%RSD	.09160	.31845	.68541

#1	2964.2	51450.	6183.0
#2	2968.0	51219.	6243.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04605	1.0409	.19199	.11084	.13046	.04715	.00005	19.000	.05073
Stddev	.00105	.0041	.00347	.00005	.00227	.00054	.00014	.190	.00014
%RSD	2.2777	.39277	1.8049	.04442	1.7427	1.1442	271.71	1.0011	.27361

#1	.04531	1.0438	.18954	.11087	.13206	.04754	.00015	19.135	.05083
#2	.04679	1.0380	.19444	.11080	.12885	.04677	-.00005	18.866	.05063

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04852	.04974	.04817	1.0738	19.136	.10649	19.243	.06474	.04830
Stddev	.00046	.00036	.00049	.0131	.153	.00124	.084	.00024	.00053
%RSD	.94853	.72986	1.0250	1.2211	.79941	1.1623	.43733	.36961	1.1011

#1	.04819	.04948	.04852	1.0831	19.245	.10736	19.184	.06457	.04793
#2	.04884	.05000	.04782	1.0645	19.028	.10561	19.303	.06491	.04868

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	44.145	.05198	W 2.0002	.09590	7.9214	.09847	.19655	20.661	44.214
Stddev	.031	.00019	.0033	.00009	.0063	.00027	.01039	.230	.492
%RSD	.07043	.36436	.16350	.09358	.08017	.27081	5.2881	1.1123	1.1123

#1	44.167	.05184	2.0025	.09584	7.9258	.09866	.20390	20.823	44.561
#2	44.123	.05211	1.9979	.09596	7.9169	.09828	.18920	20.498	43.866

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09989	.05302	.19569	.05017	.19829	.44261	.04927	.20221	.04139
Stddev	.00143	.00032	.00005	.00005	.00040	.01054	.00031	.00062	.00138
%RSD	1.4336	.59605	.02627	.10712	.20423	2.3811	.63579	.30697	3.3257

#1	.09888	.05325	.19565	.05021	.19801	.43516	.04905	.20178	.04236
#2	.10090	.05280	.19572	.05013	.19858	.45006	.04949	.20265	.04041

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3027.5	52211.	6275.3
Stddev	1.1	167.	59.4
%RSD	.03625	.31932	.94588

#1	3028.2	52093.	6233.3
#2	3026.7	52328.	6317.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00013	.00439	-.00228	.05267	.03134	-.00010	-.00214	30.840	.00010
Stddev	.00019	.00042	.00852	.00004	.00014	.00008	.00108	.135	.00023
%RSD	145.96	9.6600	374.28	.07533	.46041	80.192	50.452	.43742	233.43

#1	.00000	.00409	.00375	.05270	.03124	-.00005	-.00138	30.745	-.00006
#2	.00026	.00469	-.00831	.05265	.03145	-.00016	-.00290	30.936	.00026

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	.00026	.00001	1.1011	1.8642	.01865	13.610	.12680	-.00038
Stddev	.00002	.00016	.00030	.0022	.0319	.00126	.028	.00003	.00035
%RSD	37.106	60.928	3671.2	.20320	1.7091	6.7786	.20729	.01972	91.615

#1	-.00007	.00015	.00022	1.0996	1.8417	.01955	13.590	.12682	-.00014
#2	-.00004	.00038	-.00021	1.1027	1.8867	.01776	13.629	.12678	-.00063

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.152	.00131	.03350	.00160	6.4692	-.00149	-.00072	11.321	24.228
Stddev	.061	.00031	.00373	.00120	.0033	.00053	.00457	.074	.158
%RSD	.23187	23.808	11.127	75.081	.05131	35.840	635.94	.65057	.65057

#1	26.109	.00153	.03613	.00075	6.4716	-.00111	-.00395	11.269	24.116
#2	26.195	.00109	.03086	.00245	6.4669	-.00187	.00251	11.373	24.339

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00089	.18135	.00312	-.00005	-.00494	-.04080	-.00079	.00098	-.00074
Stddev	.00024	.00095	.00053	.00005	.00014	.00364	.00083	.00021	.00037
%RSD	26.796	.52383	17.102	96.181	2.7925	8.9171	105.36	21.503	50.103

#1	.00106	.18068	.00274	-.00002	-.00484	-.04338	-.00137	.00083	-.00048
#2	.00072	.18202	.00350	-.00009	-.00503	-.03823	-.00020	.00113	-.00100

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3044.3	52596.	6286.6
Stddev	3.8	24.	14.9
%RSD	.12335	.04611	.23728

#1	3041.7	52613.	6297.2
#2	3047.0	52579.	6276.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00031	.00209	-0.00056	.05447	.03150	-0.00015	-0.00233	31.419	.00017
Stddev	.00048	.00045	.00262	.00012	.00046	.00005	.00211	.311	.00001
%RSD	152.29	21.514	464.96	.21941	1.4623	31.516	90.636	.98937	4.0224

#1	.00002	.00241	.00129	.05439	.03117	-.00018	-.00383	31.199	.00016
#2	-.00065	.00177	-.00242	.05456	.03182	-.00012	-.00084	31.638	.00017

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00007	.00001	.00002	1.1864	1.7873	.01952	13.920	.12309	-0.00070
Stddev	.00010	.00016	.00009	.0175	.0127	.00091	.020	.00122	.00041
%RSD	136.74	3185.8	552.45	1.4766	.70842	4.6744	.14672	.98854	58.712

#1	.00000	.00012	.00008	1.1740	1.7963	.01887	13.905	.12395	-.00099
#2	-.00015	-.00011	-.00004	1.1988	1.7784	.02016	13.934	.12223	-.00041

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.063	.00127	.03313	.00097	5.7825	-0.00019	.00573	11.116	23.787
Stddev	.257	.00022	.00583	.00271	.1005	.00017	.00033	.210	.450
%RSD	.98796	17.058	17.589	279.18	1.7379	92.140	5.7844	1.8922	1.8922

#1	25.881	.00111	.02901	.00289	5.7114	-.00031	.00550	10.967	23.469
#2	26.245	.00142	.03725	-.00095	5.8535	-.00007	.00596	11.264	24.106

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00071	.18586	.00175	-0.00017	-0.00422	.00236	-0.00112	.00049	-0.00051
Stddev	.00026	.00149	.00202	.00017	.00157	.00374	.00015	.00046	.00049
%RSD	36.047	.79940	115.27	99.977	37.144	158.40	13.526	93.486	95.084

#1	.00053	.18481	.00032	-.00028	-.00311	.00501	-.00101	.00017	-.00086
#2	.00089	.18691	.00319	-.00005	-.00533	-.00028	-.00122	.00081	-.00017

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3027.4	52700.	6335.6
Stddev	3.9	49.	62.9
%RSD	.12843	.09315	.99251

#1	3030.2	52735.	6380.0
#2	3024.7	52665.	6291.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0033	.00660	.00052	.02156	.01856	-0.0018	-0.00170	58.070	.00102
Stddev	.00037	.00011	.00316	.00037	.00007	.00006	.00185	.056	.00004
%RSD	111.40	1.7222	604.58	1.7157	.36567	35.079	109.12	.09636	3.8407

#1	-0.0007	.00652	-.00171	.02182	.01852	-.00014	-.00301	58.030	.00105
#2	-.00059	.00668	.00276	.02130	.01861	-.00023	-.00039	58.109	.00099

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00345	.00043	.00020	.01051	2.0474	.05693	33.810	1.6696	-0.0171
Stddev	.00025	.00021	.00007	.00106	.0229	.00046	.132	.0049	.00049
%RSD	7.1360	49.384	33.312	10.048	1.1163	.80355	.38947	.29536	28.476

#1	.00362	.00058	.00025	.01126	2.0312	.05726	33.903	1.6731	-.00137
#2	.00327	.00028	.00016	.00977	2.0635	.05661	33.717	1.6661	-.00205

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	45.939	.01139	.01314	-0.0026	48.104	-0.0057	.00378	16.588	35.498
Stddev	.428	.00002	.00109	.00035	.039	.00028	.00045	.071	.152
%RSD	.93094	.18907	8.2775	136.01	.08122	49.145	11.834	.42795	.42795

#1	46.242	.01137	.01390	-.00051	48.132	-.00077	.00410	16.638	35.605
#2	45.637	.01140	.01237	-.00001	48.076	-.00037	.00347	16.537	35.390

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00171	.18560	.00128	.00000	-0.00727	-0.00025	-0.00180	.00922	.00023
Stddev	.00096	.00007	.00223	.00032	.00014	.05732	.00092	.00057	.00105
%RSD	56.121	.03524	173.97	28860.	1.9475	22550.	51.144	6.1742	453.29

#1	.00239	.18565	-.00029	.00023	-.00717	.04027	-.00115	.00962	-.00051
#2	.00103	.18556	.00286	-.00023	-.00737	-.04078	-.00245	.00882	.00097

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2966.0	51812.	6338.0
Stddev	5.4	68.	15.7
%RSD	.18120	.13047	.24779

#1	2962.2	51764.	6326.9
#2	2969.8	51859.	6349.1

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00746	49.534	-0.00195	.00210	.00073	-0.00004	1.0427	.03914	-0.00029	-0.00021	.00070
Stddev	.00019	.120	.00058	.00003	.00009	.00004	.0029	.00021	.00002	.00029	.00010
%RSD	2.5086	.24295	29.888	1.2135	12.294	95.972	.27554	.53837	7.7043	136.46	14.031

#1	-0.00759	49.619	-0.00154	.00208	.00079	-0.00007	1.0406	.03899	-0.00027	-0.00001	.00063
#2	-0.00733	49.449	-0.00236	.00211	.00067	-0.00001	1.0447	.03929	-0.00031	-0.00041	.00077

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00011	49.125	-0.02236	-0.00011	.04680	-0.00114	-0.00052	248.88	.00225	.00902	.00192
Stddev	.00093	.111	.03696	.00038	.00037	.00005	.00019	.68	.00061	.00289	.00064
%RSD	862.32	.22543	165.29	352.19	.79647	4.7726	36.703	.27172	27.204	32.033	33.051

#1	-0.00077	49.047	-0.04850	.00016	.04706	-0.00110	-0.00065	249.36	.00268	.00698	.00237
#2	.00055	49.203	.00377	-0.00038	.04653	-0.00118	-0.00038	248.40	.00182	.01107	.00147

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.1586	-0.01026	.00633	-0.04564	-0.09767	-0.00197	.00040	4.9672	-0.01258	-0.00129	W 10.505
Stddev	.0675	.00683	.00063	.00825	.01765	.00060	.00007	.0102	.00044	.00165	.082
%RSD	1.3080	66.537	9.8785	18.071	18.071	30.425	16.762	.20505	3.5084	128.59	.78226

#1	5.1109	-0.00543	.00589	-0.03981	-0.08519	-0.00155	.00045	4.9744	-.01289	-.00012	10.447
#2	5.2063	-.01509	.00677	-.05147	-.11015	-0.00240	.00036	4.9600	-.01227	-.00245	10.563

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value											10.000
Range											5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00245	.00010	-.12955
Stddev	.00038	.00016	.00042
%RSD	15.656	155.89	.32378

#1	.00218	-.00001	-.12926
#2	.00272	.00021	-.12985

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2977.8	51570.	6216.6
Stddev	7.5	122.	15.8
%RSD	.25030	.23608	.25421

#1	2983.1	51484.	6205.5
#2	2972.5	51656.	6227.8

Sample Name: CCV-3296664 Acquired: 5/30/2015 16:07:04 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49528	.54025	1.0151	.52735	.49132	.48687	-.00150	4.9206	.51773	.51423	.52285	.49755	2.4605
Stddev	.00063	.00628	.0279	.00833	.00505	.00557	.00277	.0696	.00411	.00902	.00633	.00182	.0403
%RSD	.12799	1.1618	2.7460	1.5792	1.0286	1.1438	184.76	1.4138	.79459	1.7545	1.2107	.36628	1.6357

#1	.49483	.53582	.99538	.52146	.48774	.48293	.00046	4.8714	.51482	.50785	.51837	.49627	2.4320
#2	.49573	.54469	1.0348	.53324	.49489	.49081	-.00346	4.9698	.52064	.52061	.52732	.49884	2.4889

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.917	.98736	19.715	.50206	.50500	5.0954	.50986	1.0562	1.0205	.00416	1.0445	1.0315	4.8128
Stddev	.567	.01430	.006	.00071	.00779	.0650	.00779	.0227	.0174	.00143	.0188	.0202	.1070
%RSD	1.1594	1.4486	.03056	.14065	1.5424	1.2757	1.5276	2.1525	1.7089	34.426	1.7968	1.9572	2.2236

#1	48.516	.97724	19.710	.50256	.49949	5.0495	.50436	1.0401	1.0082	.00314	1.0312	1.0172	4.7371
#2	49.318	.99747	19.719	.50157	.51051	5.1414	.51537	1.0722	1.0328	.00517	1.0577	1.0458	4.8885

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.299	1.0219	.49223	.00113	.49968	1.0483	-.03133	.50959	.49710	.48405
Stddev	.229	.0223	.00569	.00222	.00049	.0184	.01576	.00608	.00314	.01099
%RSD	2.2236	2.1830	1.1561	196.80	.09852	1.7584	50.302	1.1929	.63223	2.2703

#1	10.137	1.0062	.48821	.00270	.50003	1.0353	-.04247	.51389	.49932	.47628
#2	10.461	1.0377	.49626	-.00044	.49934	1.0614	-.02019	.50529	.49488	.49182

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3058.8	52715.	6277.0
Stddev	13.5	58.	53.2
%RSD	.44132	.11065	.84721

#1	3068.3	52674.	6314.7
#2	3049.2	52757.	6239.4

Sample Name: CCB Acquired: 5/30/2015 16:09:31 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0030	-0.0051	-0.00113	.00139	-0.00032	-0.00015	-0.00251	-0.00103	-0.00005	.00050	-0.00023	-0.00034	-0.00228
Stddev	.00009	.00008	.00159	.00049	.00031	.00002	.00070	.00007	.00009	.00043	.00026	.00012	.00088
%RSD	30.483	16.210	140.83	35.470	98.496	13.924	27.781	6.5076	173.50	86.581	112.01	34.579	38.761
#1	-0.00037	-0.00056	-0.00225	.00173	-0.00010	-0.00016	-0.00202	-0.00108	.00001	.00019	-0.00041	-0.00026	-0.00290
#2	-0.00024	-0.00045	.00000	.00104	-0.00054	-0.00013	-0.00301	-0.00098	-0.00011	.00080	-0.00005	-0.00042	-0.00165

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.04807	-0.00214	.00240	-0.00007	.00007	.02923	.00029	-0.00062	-0.00081	.00113	-0.00021	.00305	.00323
Stddev	.01514	.00079	.00751	.00004	.00037	.00143	.00010	.00355	.00291	.00312	.00229	.00176	.00096
%RSD	31.496	36.619	313.69	53.235	522.26	4.8844	35.647	571.82	360.31	276.52	1096.4	57.753	29.624
#1	-0.03736	-0.00159	.00771	-0.00010	-0.00019	.02822	.00022	.00189	-0.00287	.00333	-0.00183	.00429	.00391
#2	-0.05877	-0.00270	-0.00292	-0.00005	.00034	.03024	.00037	-0.00313	.00125	-0.00108	.00141	.00180	.00256

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00692	.00080	.00003	.00140	.00000	-0.00017	-0.01901	-0.00021	.00013	-0.00111
Stddev	.00205	.00052	.00006	.00056	.00019	.00148	.02119	.00012	.00023	.00111
%RSD	29.624	65.295	175.62	40.035	12676.	891.14	111.48	59.478	180.50	100.31
#1	.00837	.00043	-0.00001	.00100	.00014	.00088	-0.00403	-0.00030	.00029	-0.00032
#2	.00547	.00117	.00008	.00179	-0.00013	-0.00121	-0.03400	-0.00012	-0.00004	-0.00189

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3081.9	53723.	6319.7
Stddev	34.8	33.	7.6
%RSD	1.1301	.06211	.12088
#1	3106.5	53747.	6314.3
#2	3057.2	53700.	6325.1

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00947	.10901	.01517	.10725	.00995	.00078	.10546	.19747	.00522	.01075	.01082	.01478
Stddev	.00021	.00083	.00342	.00057	.00020	.00008	.00171	.00283	.00018	.00035	.00009	.00015
%RSD	2.2630	.75721	22.510	.52738	2.0019	9.7524	1.6229	1.4350	3.4618	3.2869	.86372	1.0277

#1	.00962	.10843	.01276	.10685	.01010	.00072	.10425	.19547	.00509	.01050	.01076	.01488
#2	.00932	.10960	.01759	.10765	.00981	.00083	.10667	.19947	.00535	.01100	.01089	.01467

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09827	2.9683	.00784	.20619	.01052	.02024	1.0647	.04170	3.0766	.00910	.00244	.01053
Stddev	.00240	.0807	.00154	.00065	.00005	.00025	.0244	.00089	.0609	.00094	.00225	.00099
%RSD	2.4463	2.7197	19.654	.31324	.51298	1.2323	2.2882	2.1337	1.9787	10.292	92.413	9.4507

#1	.09657	2.9112	.00893	.20573	.01048	.02007	1.0475	.04107	3.0336	.00976	.00084	.00982
#2	.09997	3.0254	.00675	.20665	.01056	.02042	1.0819	.04233	3.1196	.00843	.00403	.01123

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01543	.46082	.98616	.10497	.01012	.01869	.01036	.01600	F .03785	.01016	.02216	.01403
Stddev	.00174	.00990	.02118	.00152	.00008	.00078	.00010	.00276	.03287	.00095	.00021	.00066
%RSD	11.267	2.1482	2.1482	1.4520	.80170	4.1545	.98280	17.237	86.847	9.3020	.94358	4.7357

#1	.01666	.45382	.97118	.10389	.01006	.01814	.01043	.01795	.06110	.00949	.02231	.01356
#2	.01420	.46782	1.0011	.10604	.01018	.01924	.01028	.01405	.01461	.01083	.02201	.01450

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass							
Value									.06000			
Range									-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3111.8	53853.	6409.6
Stddev	10.6	36.	6.4
%RSD	.33982	.06615	.09919

#1	3119.3	53828.	6405.1
#2	3104.3	53878.	6414.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00046	.00703	-0.00042	.02098	.06819	-0.00007	-0.00058	37.288	.00072
Stddev	.00004	.00025	.00859	.00030	.00018	.00003	.00106	.062	.00027
%RSD	9.5816	3.5352	2065.6	1.4338	.25955	41.228	183.21	.16749	37.873

#1	-0.00050	.00721	-0.00649	.02076	.06832	-0.00009	.00017	37.332	.00092
#2	-0.00043	.00686	.00566	.02119	.06806	-0.00005	-.00133	37.244	.00053

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01094	.00038	.00003	.38172	.49348	.00346	30.064	2.6576	-0.0142
Stddev	.00022	.00002	.00002	.00093	.00351	.00029	.373	.0353	.00035
%RSD	1.9832	6.4983	68.496	.24266	.71210	8.2767	1.2407	1.3269	24.844

#1	.01110	.00036	.00005	.38238	.49099	.00367	30.328	2.6825	-.00167
#2	.01079	.00039	.00002	.38107	.49596	.00326	29.801	2.6327	-.00117

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.5152	.03197	.00624	.00077	22.054	-0.00063	.00083	8.4910	18.171
Stddev	.0006	.00059	.00257	.00062	.200	.00099	.00139	.0104	.022
%RSD	.00896	1.8481	41.120	80.221	.90536	156.16	167.21	.12220	.12220

#1	6.5156	.03239	.00806	.00033	22.195	-.00133	.00181	8.4984	18.186
#2	6.5148	.03155	.00443	.00121	21.913	.00007	-.00015	8.4837	18.155

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00196	.15128	.00105	.00002	-.00632	-.02357	-.00105	.01458	.00142
Stddev	.00031	.00022	.00003	.00034	.00052	.00708	.00035	.00060	.00010
%RSD	15.816	.14456	2.7342	1633.2	8.2993	30.023	32.873	4.1351	7.1097

#1	.00218	.15143	.00103	-.00022	-.00595	-.01856	-.00081	.01501	.00135
#2	.00174	.15112	.00107	.00026	-.00669	-.02857	-.00130	.01416	.00149

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3095.2	53489.	6405.6
Stddev	3.2	560.	19.8
%RSD	.10190	1.0478	.30920

#1	3097.4	53093.	6391.6
#2	3092.9	53885.	6419.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0018	.06695	.00016	.00808	.02547	-0.0009	-0.00163	6.0719	.00034
Stddev	.00048	.00099	.00747	.00020	.00030	.00008	.00101	.0381	.00003
%RSD	270.50	1.4799	4718.8	2.4557	1.1909	97.142	62.126	.62735	8.3740

#1	-0.00051	.06625	.00544	.00822	.02526	-0.00003	-0.00091	6.0449	.00036
#2	.00016	.06765	-.00512	.00794	.02569	-0.00015	-.00234	6.0988	.00032

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00037	.00038	-0.00018	.13601	.99773	.00761	4.5510	.00188	-0.00042
Stddev	.00012	.00014	.00019	.00032	.01034	.00034	.0399	.00006	.00058
%RSD	31.494	36.213	101.14	.23684	1.0363	4.4685	.87694	3.3515	136.91

#1	-0.00029	.00047	-0.00032	.13578	.99042	.00737	4.5228	.00184	-0.00083
#2	-0.00045	.00028	-0.00005	.13624	1.0050	.00785	4.5792	.00193	-0.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.707	.00295	.00483	-0.00157	6.2841	-0.00212	-0.00037	9.3540	20.017
Stddev	.222	.00048	.00195	.00069	.0740	.00296	.00173	.0964	.206
%RSD	1.4150	16.113	40.422	44.208	1.1773	139.92	467.66	1.0300	1.0300

#1	15.865	.00329	.00345	-.00108	6.2318	-0.00002	-.00159	9.2858	19.872
#2	15.550	.00261	.00621	-.00206	6.3364	-0.00421	.00085	9.4221	20.163

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00050	.02959	.00050	.00142	-0.00227	-0.01052	-0.00034	.00283	.00065
Stddev	.00270	.00037	.00027	.00078	.00352	.00703	.00017	.00031	.00116
%RSD	539.57	1.2557	53.339	55.123	154.79	66.806	50.345	11.005	178.22

#1	-0.00241	.02933	.00069	.00087	.00021	-.01549	-0.00022	.00305	.00147
#2	.00141	.02985	.00031	.00197	-.00476	-0.00555	-0.00046	.00261	-.00017

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3111.9	53994.	6428.3
Stddev	16.8	61.	27.6
%RSD	.54104	.11321	.42877

#1	3123.8	53950.	6447.8
#2	3100.0	54037.	6408.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00024	.11911	-.00643	.01107	.01965	.00044	-.00337	15.535	.00216
Stddev	.00056	.00018	.00131	.00044	.00010	.00013	.00229	.024	.00001
%RSD	230.61	.15162	20.351	3.9802	.52515	30.561	67.889	.15623	.25696

#1	-.00015	.11923	-.00735	.01076	.01972	.00034	-.00175	15.518	.00217
#2	.00064	.11898	-.00550	.01138	.01957	.00053	-.00499	15.552	.00216

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01959	.00023	.00054	.01131	2.3350	.05428	11.147	.43186	-.00062
Stddev	.00024	.00009	.00033	.00053	.0425	.00154	.025	.00067	.00005
%RSD	1.2214	37.749	61.926	4.6708	1.8204	2.8378	.21986	.15540	8.4265

#1	.01942	.00017	.00030	.01094	2.3050	.05319	11.164	.43234	-.00058
#2	.01976	.00029	.00077	.01169	2.3651	.05536	11.130	.43139	-.00065

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	35.654	.06684	.00370	-.00170	38.780	-.00072	.00156	20.255	43.346
Stddev	.305	.00006	.00082	.00034	.041	.00094	.00284	.264	.564
%RSD	.85426	.09087	22.037	20.196	.10641	131.88	181.86	1.3015	1.3015

#1	35.439	.06688	.00428	-.00195	38.809	-.00005	-.00045	20.069	42.947
#2	35.869	.06680	.00313	-.00146	38.750	-.00138	.00357	20.441	43.745

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00136	.06790	.00133	-.00008	-.00282	-.01789	-.00098	.07030	-.00053
Stddev	.00074	.00065	.00032	.00043	.00200	.01739	.00052	.00023	.00018
%RSD	54.674	.96447	23.860	525.78	70.908	97.195	53.349	.33201	34.743

#1	.00084	.06744	.00111	.00022	-.00141	-.03019	-.00061	.07046	-.00066
#2	.00189	.06836	.00156	-.00039	-.00423	-.00560	-.00135	.07013	-.00040

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3115.2	54316.	6519.8
Stddev	.1	41.	21.3
%RSD	.00286	.07634	.32745

#1	3115.3	54287.	6534.9
#2	3115.2	54345.	6504.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0030	.15952	-0.00206	.01315	.04071	-0.0011	-0.00081	29.455	.00024
Stddev	.00018	.00088	.00308	.00157	.00025	.00004	.00194	.119	.00004
%RSD	61.501	.54973	149.15	11.953	.61994	39.948	240.48	.40451	16.823

#1	-0.0043	.15890	-0.00424	.01426	.04089	-0.00008	.00056	29.539	.00021
#2	-0.0017	.16014	.00011	.01204	.04053	-0.00014	-.00218	29.370	.00027

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00125	.00091	.00061	.30774	1.0333	.00969	19.481	.01690	-0.0125
Stddev	.00041	.00013	.00027	.00178	.0054	.00148	.004	.00017	.00024
%RSD	33.015	13.992	44.664	.57820	.52124	15.233	.02199	1.0140	18.887

#1	.00096	.00082	.00080	.30648	1.0295	.01073	19.484	.01702	-.00142
#2	.00154	.00099	.00042	.30900	1.0371	.00864	19.478	.01678	-.00108

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	33.082	.00556	.00811	.00135	35.707	-.00142	-.00103	10.053	21.513
Stddev	.043	.00012	.00054	.00046	.102	.00130	.00206	.032	.069
%RSD	.12966	2.0947	6.7013	34.116	.28446	90.916	199.54	.32287	.32287

#1	33.052	.00547	.00849	.00102	35.779	-.00234	.00042	10.030	21.464
#2	33.113	.00564	.00773	.00167	35.636	-.00051	-.00249	10.076	21.563

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00067	.09208	.00327	.00332	-.00470	-.02371	-.00005	.00792	.00064
Stddev	.00053	.00010	.00093	.00007	.00282	.02280	.00008	.00030	.00076
%RSD	78.729	.10459	28.346	1.9599	60.107	96.166	175.79	3.8099	119.26

#1	.00030	.09215	.00392	.00336	-.00670	-.03983	-.00010	.00813	.00117
#2	.00105	.09202	.00261	.00327	-.00270	-.00759	.00001	.00771	.00010

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3056.9	53086.	6361.4
Stddev	3.0	48.	6.4
%RSD	.09854	.08986	.10068

#1	3059.0	53120.	6356.9
#2	3054.7	53052.	6365.9

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00830	48.851	-0.00289	.00079	.00051	.00000	1.0273	.03094	-0.00013	-0.00021	.00065
Stddev	.00072	.470	.00243	.00029	.00027	.0000	.0112	.00011	.00011	.00018	.00000
%RSD	8.6743	.96123	84.234	36.767	52.361	1480.7	1.0900	.34611	82.088	85.476	.56491

#1	-0.00880	48.519	-0.00117	.00100	.00032	.00002	1.0352	.03102	-0.00006	-0.00034	.00065
#2	-0.00779	49.183	-0.00461	.00058	.00071	-0.00003	1.0194	.03086	-0.00021	-0.00008	.00065

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	48.854	-0.05435	-0.00087	.04883	-0.00154	-0.00023	245.87	.00204	.00932	.00270
Stddev	.00020	1.011	.01972	.00112	.00147	.00001	.00035	2.97	.00008	.00050	.00056
%RSD	1221.8	2.0691	36.286	129.59	3.0060	.39316	151.14	1.2069	4.0568	5.3956	20.712

#1	-0.00013	48.139	-0.04041	-0.00166	.04986	-0.00154	.00002	243.77	.00198	.00896	.00309
#2	.00016	49.569	-0.06830	-0.00007	.04779	-0.00153	-0.00048	247.96	.00209	.00967	.00230

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.0329	-0.01045	.01017	-0.03897	-0.08341	-0.00072	.00043	5.0485	-0.01308	.00182	W 10.666
Stddev	.0563	.00365	.00287	.01629	.03486	.00171	.00002	.0476	.00016	.00041	.090
%RSD	1.1186	34.883	28.248	41.801	41.801	236.51	4.1238	.94351	1.1897	22.448	.84161

#1	5.0727	-0.00787	.00814	-0.05049	-0.10806	-0.00193	.00044	5.0821	-0.01297	.00210	10.729
#2	4.9931	-0.01303	.01221	-0.02745	-0.05875	.00049	.00041	5.0148	-0.01319	.00153	10.602

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value											10.000
Range											5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00302	-0.00024	-.13295
Stddev	.00029	.00070	.00428
%RSD	9.4975	292.31	3.2197

#1	.00282	.00026	-.13597
#2	.00322	-0.00074	-.12992

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3027.2	51414.	6324.4
Stddev	16.3	558.	38.7
%RSD	.53893	1.0846	.61119

#1	3038.7	51019.	6351.7
#2	3015.7	51808.	6297.1

Sample Name: CCV-3296664 Acquired: 5/30/2015 16:27:47 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50417	.53607	1.0030	.52135	.47844	.47318	-.00027	4.7987	.51004	.50769	.51798	.50827	2.3899
Stddev	.00800	.00169	.0028	.00148	.00315	.00256	.00391	.0277	.00119	.00151	.00129	.00635	.0217
%RSD	1.5871	.31528	.28167	.28456	.65765	.54192	1470.9	.57795	.23335	.29681	.24871	1.2499	.90736

#1	.49851	.53727	1.0050	.52240	.47622	.47137	-.00303	4.7791	.51088	.50662	.51707	.50378	2.3746
#2	.50982	.53488	1.0010	.52030	.48067	.47500	.00250	4.8184	.50920	.50875	.51889	.51277	2.4052

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	47.690	.95739	20.108	.50956	.49706	4.9478	.50248	1.0452	1.0042	.00311	1.0321	1.0143	4.6797
Stddev	.336	.00975	.228	.00515	.00133	.0301	.00011	.0015	.0050	.00581	.0026	.0018	.0573
%RSD	.70350	1.0185	1.1319	1.0102	.26772	.60738	.02265	.14780	.50311	186.73	.24787	.17500	1.2254

#1	47.453	.95050	19.948	.50592	.49612	4.9266	.50240	1.0441	1.0006	.00722	1.0303	1.0131	4.6392
#2	47.927	.96429	20.269	.51320	.49800	4.9691	.50256	1.0463	1.0078	-.00100	1.0339	1.0156	4.7203

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.015	1.0135	.47906	.00079	.50694	1.0294	.00810	.52009	.49744	.46930
Stddev	.123	.0030	.00327	.00097	.00386	.0027	.00283	.00706	.00701	.00603
%RSD	1.2254	.29557	.68183	122.21	.76098	.26075	34.946	1.3573	1.4098	1.2845

#1	9.9278	1.0114	.47675	.00148	.50422	1.0275	.00610	.51510	.49248	.46504
#2	10.101	1.0156	.48137	.00011	.50967	1.0313	.01010	.52509	.50240	.47357

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3072.6	52086.	6358.4
Stddev	.1	374.	3.8
%RSD	.00394	.71710	.05917

#1	3072.7	52350.	6361.1
#2	3072.5	51822.	6355.7

Sample Name: CCB Acquired: 5/30/2015 16:30:16 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0088	.00016	-0.0047	.00139	-0.00015	-0.00009	-0.00149	.00190	-0.00024	.00013	.00010	-0.00088	.00056
Stddev	.00004	.00043	.00142	.00059	.00020	.00005	.00396	.00065	.00009	.00024	.00034	.00003	.00166
%RSD	4.2283	257.73	303.71	41.982	130.25	54.110	264.78	34.032	35.893	182.45	330.09	3.0153	297.13

#1	-0.00091	.00047	-0.00147	.00098	-0.00001	-0.00006	.00130	.00236	-0.00018	.00031	-0.00014	-0.00087	-0.00061
#2	-0.00086	-0.00014	.00054	.00181	-0.00029	-0.00013	-0.00429	.00144	-0.00031	-0.00004	.00035	-0.00090	.00173

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.07661	-0.00158	-0.00509	.00006	.00024	.03331	-0.00039	.00198	-0.00062	.00124	-0.00234	.00037	-0.02303
Stddev	.02177	.00004	.00176	.00003	.00016	.00857	.00011	.00266	.00241	.00142	.00298	.00605	.00163
%RSD	28.415	2.6287	34.617	60.741	66.482	25.724	27.610	133.80	386.72	114.26	127.37	1651.1	7.0813

#1	-0.06122	-0.00161	-0.00633	.00003	.00035	.03937	-0.00047	.00011	.00108	.00225	-0.00445	-0.00391	-0.02418
#2	-0.09201	-0.00155	-0.00384	.00008	.00013	.02725	-0.00031	.00386	-0.00232	.00024	-0.00023	.00465	-0.02188

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.04929	-0.00003	.00006	.00280	.00010	.00066	-0.02093	-0.00062	-0.00006	-0.00131
Stddev	.00349	.00111	.00002	.00060	.00016	.00080	.00924	.00016	.00046	.00064
%RSD	7.0813	3519.2	25.877	21.481	158.22	120.78	44.150	26.459	813.60	48.993

#1	-0.05175	-0.00082	.00008	.00237	.00021	.00123	-0.02747	-0.00051	.00027	-0.00176
#2	-0.04682	.00076	.00005	.00322	-0.00001	.00010	-0.01440	-0.00074	-0.00039	-0.00085

Check ?	Chk Pass									
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3070.3	52491.	6231.3
Stddev	21.4	269.	15.0
%RSD	.69831	.51167	.24137

#1	3085.5	52301.	6220.6
#2	3055.2	52681.	6241.9

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00984	.10755	.01414	.10650	.01001	.00082	.10525	.20180	.00508	.01081	.01048	.01507
Stddev	.00080	.00050	.00379	.00051	.00033	.00008	.00125	.00469	.00011	.00004	.00017	.00068
%RSD	8.0812	.46355	26.828	.47509	3.3386	10.170	1.1915	2.3260	2.2353	.33486	1.6698	4.5129

#1	.00928	.10720	.01145	.10614	.00977	.00076	.10614	.19848	.00500	.01084	.01035	.01459
#2	.01040	.10791	.01682	.10686	.01025	.00088	.10437	.20512	.00516	.01079	.01060	.01556

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09933	2.9910	.00876	.21375	.01063	.02019	1.0636	.04185	3.0382	.00728	.00053	.01000
Stddev	.00267	.0508	.00019	.00804	.00021	.00071	.0300	.00071	.0416	.00056	.00355	.00113
%RSD	2.6926	1.6989	2.2023	3.7598	1.9981	3.5077	2.8224	1.6905	1.3686	7.6755	665.18	11.270

#1	.09744	2.9550	.00862	.20807	.01048	.01969	1.0423	.04135	3.0088	.00689	.00304	.01080
#2	.10122	3.0269	.00889	.21943	.01078	.02069	1.0848	.04235	3.0676	.00768	-.00197	.00921

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01593	.48128	1.0299	.10417	.01025	.01848	.01015	.01554	F .03986	.00958	.02175	.01511
Stddev	.00043	.02898	.0620	.00069	.00012	.00039	.00008	.00100	.00428	.00004	.00045	.00017
%RSD	2.6858	6.0215	6.0215	.66431	1.1763	2.1171	.79501	6.4379	10.749	.44166	2.0611	1.1272

#1	.01563	.46079	.98608	.10466	.01016	.01820	.01021	.01625	.04289	.00961	.02143	.01499
#2	.01624	.50177	1.0738	.10368	.01033	.01875	.01010	.01483	.03683	.00955	.02207	.01523

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass							
Value									.06000			
Range									-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3082.4	52792.	6183.6
Stddev	11.0	526.	2.9
%RSD	.35696	.99541	.04681

#1	3074.6	53164.	6185.7
#2	3090.2	52421.	6181.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -0.00031	W .01721	-0.00055	.00077	.00046	-0.00017	.00002	W .11877	-0.00028
Stddev	.00013	.00024	.00065	.00045	.00000	.00003	.00071	.00071	.00030
%RSD	40.035	1.4170	117.48	58.932	.57769	19.820	3611.8	.59473	105.66

#1	-0.00023	.01738	-0.00009	.00045	.00045	-0.00015	.00052	.11827	-0.00007
#2	-0.00040	.01704	-0.00101	.00109	.00046	-0.00019	-0.00048	.11926	-0.00049

Check ?	Chk Fail	Chk Warn	Chk Pass	Chk Warn	Chk Pass				
High Limit	.01000	.01647						.02706	
Low Limit	-.00010	-.05000						-.10000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.00004	F .03371	W .01901	-0.03080	-0.00136	.00528	W .00033	.00000
Stddev	.00030	.00044	.00017	.00162	.02183	.00089	.00839	.00007	.00004
%RSD	294.75	1215.3	.50195	8.5386	70.903	65.287	158.85	20.384	1485.0

#1	.00031	.00035	.03383	.01786	-0.01536	-0.00073	-0.00065	.00038	.00003
#2	-0.00011	-0.00027	.03360	.02015	-0.04624	-0.00198	.01121	.00029	-0.00003

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit			.01000	.01710				.00023	
Low Limit			-.01000	-.05000				-.00500	

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00940	-0.00004	.00363	-0.00088	.00351	-0.00174	-0.00042	.00122	.00260
Stddev	.01313	.00016	.00099	.00062	.00033	.00142	.00198	.00061	.00131
%RSD	139.58	458.78	27.349	71.039	9.4870	81.753	467.38	50.507	50.507

#1	.01869	-0.00015	.00293	-0.00132	.00375	-0.00275	.00098	.00165	.00353
#2	.00012	.00008	.00434	-0.00044	.00328	-0.00074	-0.00183	.00078	.00167

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00058	.00037	W .00126	.00019	-0.00129	.00255	-0.00028	.00250	.00032
Stddev	.00118	.00007	.00098	.00046	.00177	.03681	.00033	.00065	.00081
%RSD	205.70	18.167	77.560	240.44	137.07	1442.0	116.67	25.860	255.99

#1	-0.00026	.00032	.00196	-0.00013	-0.00004	-.02348	-0.00051	.00204	-0.00026
#2	.00141	.00042	.00057	.00052	-0.00254	.02858	-0.00005	.00295	.00089

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.00000						
Low Limit			-.00500						

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3126.9	53723.	6283.4
Stddev	10.1	88.	38.1
%RSD	.32367	.16390	.60705

#1	3134.0	53785.	6310.3
#2	3119.7	53661.	6256.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04467	2.0004	1.0115	1.0516	1.9467	.04772	2.0131	47.445	.10292
Stddev	.00017	.0027	.0033	.0026	.0215	.00045	.0106	.492	.00021
%RSD	.38045	.13353	.32980	.24392	1.1036	.93548	.52803	1.0379	.20146

#1	.04455	1.9985	1.0092	1.0497	1.9315	.04740	2.0056	47.097	.10277
#2	.04479	2.0023	1.0139	1.0534	1.9619	.04804	2.0206	47.793	.10307

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49224	F .19792	.27934	.96286	48.778	.97273	48.336	.49053	1.0222
Stddev	.00064	.00024	.00103	.00039	.399	.00870	.075	.00108	.0028
%RSD	.13068	.12271	.37017	.04057	.81791	.89418	.15574	.22048	.26977

#1	.49178	.19809	.27861	.96259	48.496	.96658	48.283	.48977	1.0203
#2	.49269	.19775	.28007	.96314	49.060	.97888	48.389	.49130	1.0242

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	52.437	.48593	10.614	.50057	2.0611	.53411	2.1077	9.6625	20.678
Stddev	.909	.00165	.047	.00292	.0002	.00030	.0160	.0536	.115
%RSD	1.7342	.33858	.44484	.58261	.00893	.05696	.76092	.55483	.55483

#1	51.794	.48476	10.580	.49851	2.0610	.53389	2.0964	9.6245	20.597
#2	53.080	.48709	10.647	.50263	2.0613	.53432	2.1191	9.7004	20.759

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0371	.97175	.98429	.98249	2.0550	2.0379	.50051	.47287	.45423
Stddev	.0282	.01019	.00364	.00225	.0277	.0174	.00069	.00150	.00363
%RSD	1.3834	1.0487	.36971	.22890	1.3466	.85145	.13729	.31631	.79810

#1	2.0172	.96454	.98172	.98090	2.0354	2.0501	.50003	.47181	.45167
#2	2.0571	.97896	.98687	.98408	2.0746	2.0256	.50100	.47393	.45679

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2993.4	52113.	6265.5
Stddev	9.6	135.	46.7
%RSD	.31978	.25815	.74597

#1	3000.1	52208.	6298.5
#2	2986.6	52018.	6232.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0074	.11953	-0.00236	.02686	.04460	-0.00008	.00042	26.561	-0.00002
Stddev	.00010	.00168	.00327	.00021	.00048	.00001	.00071	.283	.00012
%RSD	13.603	1.4067	138.58	.77285	1.0861	7.8000	170.15	1.0660	558.37

#1	-0.00081	.12072	-0.00467	.02700	.04425	-0.00008	.00092	26.361	.00006
#2	-0.00067	.11834	-0.00005	.02671	.04494	-0.00009	-0.00008	26.761	-0.00011

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00028	.00050	.00043	.11333	2.3052	.00777	7.0415	.01756	.00128
Stddev	.00013	.00004	.00004	.00208	.0507	.00038	.0009	.00015	.00014
%RSD	46.662	8.0991	10.165	1.8327	2.2009	4.9358	.01244	.83899	10.560

#1	-0.00037	.00052	.00040	.11480	2.2693	.00804	7.0421	.01745	.00119
#2	-0.00019	.00047	.00046	.11186	2.3411	.00750	7.0409	.01766	.00138

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.934	.00200	.01811	.00091	10.286	-0.00178	.00258	5.1368	10.993
Stddev	.146	.00077	.00013	.00042	.028	.00019	.00020	.0686	.147
%RSD	.73463	38.545	.72858	45.782	.27513	10.395	7.7239	1.3357	1.3357

#1	20.037	.00145	.01821	.00121	10.266	-0.00191	.00272	5.1853	11.097
#2	19.830	.00254	.01802	.00062	10.306	-0.00165	.00244	5.0883	10.889

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00117	.22057	.00135	.00293	-0.00375	-0.01955	-0.00025	.00199	-0.00089
Stddev	.00055	.00220	.00236	.00042	.00051	.01440	.00033	.00035	.00113
%RSD	46.631	.99581	175.03	14.340	13.677	73.645	130.11	17.577	127.41

#1	.00156	.21902	.00302	.00263	-0.00412	-0.02973	-0.00002	.00175	-0.00009
#2	.00079	.22213	-0.00032	.00323	-0.00339	-0.00937	-0.00049	.00224	-0.00169

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3005.5	52076.	6239.4
Stddev	2.7	401.	30.1
%RSD	.08902	.77039	.48296

#1	3003.6	52360.	6260.7
#2	3007.4	51792.	6218.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00042	.02437	.00150	.00587	.00879	-0.00017	.00039	5.4803	-0.00021
Stddev	.00028	.00018	.00229	.00022	.00005	.00006	.00301	.0402	.00031
%RSD	65.162	.72903	152.89	3.7911	.56489	36.298	765.58	.73312	148.41

#1	-0.00023	.02450	-0.00012	.00571	.00875	-0.00013	.00252	5.5087	-0.00042
#2	-0.00062	.02425	.00312	.00603	.00882	-0.00022	-.00173	5.4519	.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00022	-0.00003	-0.00067	.02729	.35150	-0.00145	1.4489	.00349	.00015
Stddev	.00028	.00009	.00022	.00091	.00794	.00163	.0141	.00004	.00012
%RSD	128.27	317.21	32.637	3.3462	2.2582	112.40	.97014	1.1730	80.353

#1	.00042	.00003	-0.00052	.02665	.35711	-0.00030	1.4390	.00346	.00023
#2	.00002	-0.00009	-0.00083	.02794	.34589	-0.00260	1.4589	.00352	.00006

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.7039	.00038	.00516	-0.00200	2.0853	-0.00228	.00330	.98166	2.1007
Stddev	.0175	.00003	.00326	.00149	.0159	.00027	.00142	.00280	.0060
%RSD	.47166	7.2184	63.194	74.374	.76194	11.676	42.941	.28572	.28572

#1	3.7162	.00040	.00286	-.00305	2.0741	-.00246	.00230	.97967	2.0965
#2	3.6915	.00036	.00747	-.00095	2.0966	-.00209	.00431	.98364	2.1050

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00129	.04505	.00197	.00061	-0.00152	-0.04488	.00033	.00061	-0.00004
Stddev	.00050	.00007	.00021	.00034	.00124	.00398	.00009	.00040	.00044
%RSD	38.925	.16337	10.560	55.601	82.071	8.8750	28.686	66.013	1073.2

#1	.00093	.04510	.00182	.00085	-.00064	-.04770	.00039	.00090	-.00035
#2	.00164	.04500	.00212	.00037	-.00240	-.04207	.00026	.00033	.00027

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3068.3	52904.	6252.2
Stddev	6.6	21.	2.2
%RSD	.21462	.04010	.03560

#1	3073.0	52919.	6250.6
#2	3063.7	52889.	6253.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04507	2.1039	1.0163	1.0820	1.9747	.04752	F 2.0220	73.300	.10329
Stddev	.00038	.0024	.0006	.0001	.0045	.00025	.0041	.240	.00026
%RSD	.83643	.11190	.06376	.01100	.22583	.52221	.20286	.32784	.25467

#1	.04480	2.1056	1.0167	1.0821	1.9715	.04735	2.0249	73.130	.10348
#2	.04533	2.1022	1.0158	1.0820	1.9778	.04770	2.0191	73.470	.10311

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49208	W .19720	.25000	1.0597	50.893	.97655	55.527	.51337	1.0365
Stddev	.00031	.00011	.00165	.0028	.182	.00242	.075	.00198	.0022
%RSD	.06264	.05611	.65813	.26447	.35674	.24742	.13457	.38565	.21407

#1	.49186	.19713	.24883	1.0578	50.765	.97484	55.474	.51197	1.0380
#2	.49230	.19728	.25116	1.0617	51.021	.97825	55.580	.51477	1.0349

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	71.224	.48673	W 10.755	.49726	12.902	.53428	2.0793	14.740	31.544
Stddev	.206	.00071	.024	.00107	.002	.00194	.0104	.011	.023
%RSD	.28992	.14581	.22742	.21595	.01215	.36272	.49860	.07301	.07301

#1	71.078	.48724	10.772	.49650	12.903	.53291	2.0719	14.732	31.527
#2	71.370	.48623	10.738	.49802	12.900	.53565	2.0866	14.748	31.560

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2.0209	1.1861	1.0023	1.0043	2.0125	2.0460	.51109	.47789	.45237
Stddev	.0131	.0025	.0075	.0018	.0144	.0093	.00322	.00158	.00062
%RSD	.64884	.20787	.75271	.17592	.71299	.45484	.62998	.33136	.13703

#1	2.0116	1.1843	.99694	1.0031	2.0024	2.0526	.50881	.47677	.45281
#2	2.0302	1.1878	1.0076	1.0056	2.0227	2.0395	.51337	.47901	.45193

Check ?	Chk Warn	Chk Pass							
High Limit	2.0000								
Low Limit	-.05000								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2954.6	51319.	6261.1
Stddev	1.3	52.	64.7
%RSD	.04493	.10049	1.0339

#1	2953.6	51356.	6306.9
#2	2955.5	51283.	6215.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04397	2.0704	.99391	1.0539	1.9572	.04703	F 1.9599	72.866	.10062
Stddev	.00106	.0012	.00655	.0002	.0010	.00024	.0098	.250	.00060
%RSD	2.4152	.05568	.65896	.01568	.04909	.50271	.49913	.34255	.59431

#1	.04472	2.0712	.98928	1.0538	1.9578	.04720	1.9668	73.042	.10104
#2	.04322	2.0696	.99855	1.0541	1.9565	.04687	1.9529	72.689	.10019

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48399	W .19241	.24630	1.0446	50.402	.97130	54.794	.50546	1.0170
Stddev	.00043	.00010	.00061	.0000	.158	.00216	.090	.00093	.0003
%RSD	.08917	.05159	.24942	.00325	.31441	.22228	.16447	.18435	.02956

#1	.48430	.19234	.24587	1.0446	50.514	.97283	54.730	.50480	1.0172
#2	.48369	.19248	.24674	1.0446	50.290	.96977	54.858	.50612	1.0167

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	70.878	.47810	W 10.491	.48753	12.728	.51609	2.0110	14.665	31.383
Stddev	.288	.00156	.009	.00050	.022	.00322	.0241	.040	.086
%RSD	.40702	.32631	.08971	.10301	.17389	.62409	1.1975	.27277	.27277

#1	71.082	.47921	10.498	.48717	12.744	.51381	1.9940	14.693	31.444
#2	70.674	.47700	10.485	.48788	12.712	.51837	2.0281	14.637	31.323

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9766	1.1791	.98628	.98824	1.9588	2.0395	.50344	.46918	.44559
Stddev	.0079	.0016	.00208	.00001	.0002	.0312	.00086	.00197	.00146
%RSD	.40029	.13815	.21104	.00091	.00950	1.5304	.17064	.42062	.32787

#1	1.9710	1.1803	.98480	.98825	1.9589	2.0616	.50405	.46779	.44456
#2	1.9821	1.1780	.98775	.98824	1.9586	2.0174	.50284	.47058	.44662

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2927.7	51251.	6319.8
Stddev	1.8	221.	20.8
%RSD	.06307	.43060	.32956

#1	2929.0	51407.	6305.0
#2	2926.4	51095.	6334.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00017	.09394	.00340	.03234	.04452	-.00014	-.00108	27.484	-.00005
Stddev	.00008	.00013	.00182	.00066	.00003	.00000	.00020	.090	.00007
%RSD	50.117	.13424	53.486	2.0312	.07828	2.4089	18.393	.32815	134.28

#1	.00011	.09403	.00468	.03280	.04450	-.00014	-.00123	27.420	.00000
#2	.00023	.09385	.00211	.03188	.04455	-.00014	-.00094	27.548	-.00010

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00019	.00007	.00069	.09490	2.6296	.00769	7.1881	.00193	.00134
Stddev	.00009	.00010	.00009	.00227	.0364	.00011	.0008	.00007	.00027
%RSD	48.723	133.49	12.419	2.3965	1.3855	1.3776	.01149	3.6270	20.436

#1	.00026	.00014	.00063	.09329	2.6038	.00761	7.1886	.00188	.00114
#2	.00013	.00000	.00075	.09651	2.6553	.00776	7.1875	.00198	.00153

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	21.804	.00202	.03173	.00219	11.059	-.00242	.00335	4.9268	10.543
Stddev	.132	.00039	.00169	.00104	.103	.00105	.00162	.0544	.117
%RSD	.60521	19.394	5.3189	47.612	.93267	43.493	48.428	1.1050	1.1050

#1	21.897	.00230	.03293	.00145	10.986	-.00316	.00220	4.8883	10.461
#2	21.711	.00175	.03054	.00292	11.132	-.00167	.00450	4.9653	10.626

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00123	.23167	.00278	.00271	-.00550	W -.06421	.00007	.00128	-.00037
Stddev	.00022	.00139	.00141	.00010	.00229	.00068	.00140	.00084	.00123
%RSD	18.136	.59783	50.868	3.5367	41.596	1.0573	2059.4	65.981	335.58

#1	.00107	.23069	.00178	.00278	-.00712	-.06373	.00106	.00188	-.00123
#2	.00138	.23265	.00378	.00265	-.00389	-.06469	-.00092	.00068	.00050

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3020.4	52317.	6251.2
Stddev	4.5	86.	16.3
%RSD	.14790	.16418	.26107

#1	3017.3	52256.	6239.7
#2	3023.6	52377.	6262.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0041	.00310	.00094	.22482	.03707	-0.0012	.00128	98.161	.00009
Stddev	.00041	.00004	.00000	.00270	.00024	.00006	.00208	.003	.00005
%RSD	98.884	1.3991	.38536	1.2000	.63410	54.185	162.71	.00328	51.073

#1	-0.0012	.00307	.00094	.22291	.03724	-0.0007	-0.0019	98.163	.00006
#2	-0.0070	.00313	.00095	.22673	.03690	-0.0016	.00275	98.159	.00012

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00033	.00027	.01708	.04357	15.062	.03782	23.325	.03919	.00044
Stddev	.00003	.00008	.00011	.00141	.050	.00050	.037	.00014	.00050
%RSD	9.8769	31.623	.61525	3.2254	.33386	1.3231	.15706	.36596	114.52

#1	.00031	.00021	.01701	.04258	15.026	.03817	23.351	.03929	.00079
#2	.00036	.00033	.01715	.04457	15.097	.03746	23.299	.03909	.00008

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	146.03	.00452	1.6512	.00394	62.432	-0.00051	.01018	3.9148	8.3776
Stddev	.54	.00008	.0133	.00114	.181	.00287	.00088	.0420	.0898
%RSD	.36700	1.7662	.80231	28.810	.29065	563.87	8.6157	1.0721	1.0721

#1	146.41	.00457	1.6418	.00474	62.304	.00152	.01080	3.8851	8.3141
#2	145.65	.00446	1.6606	.00314	62.561	-0.00254	.00956	3.9445	8.4411

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00173	1.0305	.00058	-0.00012	-0.00677	-0.02137	-0.00093	.03291	.00085
Stddev	.00112	.0004	.00063	.00018	.00103	.00533	.00005	.00173	.00062
%RSD	64.797	.04411	107.81	151.33	15.172	24.922	5.2078	5.2683	72.518

#1	.00094	1.0302	.00103	.00001	-0.0604	-0.02513	-0.00090	.03169	.00041
#2	.00252	1.0308	.00014	-0.00025	-0.00749	-0.01760	-0.00097	.03414	.00129

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2928.2	50818.	6251.9
Stddev	1.2	37.	24.5
%RSD	.04145	.07308	.39182

#1	2927.3	50844.	6269.2
#2	2929.0	50791.	6234.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0009	1.1999	.00057	.02969	.04782	-0.0014	-0.00040	81.447	-0.00006
Stddev	.00108	.0012	.00229	.00082	.00054	.00003	.00132	.434	.00005
%RSD	1158.7	.09887	402.13	2.7772	1.1247	20.782	333.20	.53328	90.949

#1	-0.00086	1.2008	-0.0105	.03027	.04820	-0.0012	-0.0133	81.754	-0.0002
#2	.00067	1.1991	.00219	.02910	.04744	-0.0016	.00054	81.140	-0.0010

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00086	.00263	.00285	2.1230	1.4834	-0.0154	10.075	.29610	.00073
Stddev	.00014	.00004	.00035	.0024	.0052	.00085	.006	.00099	.00038
%RSD	15.749	1.3831	12.262	.11551	.35138	55.087	.05986	.33579	52.138

#1	.00096	.00260	.00310	2.1212	1.4798	-0.0094	10.070	.29540	.00046
#2	.00077	.00265	.00261	2.1247	1.4871	-0.0213	10.079	.29681	.00100

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.5106	.00382	.06066	.00650	1.0335	.00153	.00691	4.4477	9.5181
Stddev	.0094	.00068	.00057	.00153	.0016	.00113	.00471	.0442	.0946
%RSD	.16985	17.886	.93579	23.489	.15682	74.161	68.125	.99434	.99434

#1	5.5173	.00334	.06106	.00758	1.0346	.00233	.00358	4.4164	9.4512
#2	5.5040	.00430	.06025	.00542	1.0323	.00073	.01024	4.4790	9.5850

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00212	.13408	.00290	.02892	-.00585	-.00467	.00207	.06699	-.00020
Stddev	.00009	.00083	.00170	.00130	.00056	.01070	.00021	.00028	.00093
%RSD	4.0165	.61991	58.799	4.5122	9.5749	228.91	10.268	.41600	468.26

#1	.00218	.13467	.00410	.02799	-0.00625	-.01224	.00222	.06719	.00046
#2	.00206	.13349	.00169	.02984	-0.00546	.00289	.00192	.06679	-0.00086

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2978.3	51690.	6232.7
Stddev	2.5	159.	6.1
%RSD	.08388	.30687	.09799

#1	2980.0	51802.	6228.3
#2	2976.5	51578.	6237.0

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00744	48.977	-0.00212	.00302	.00031	-0.00008	1.0290	.03893	-0.00034	-0.00058	.00070
Stddev	.00001	.177	.00100	.00034	.00000	.00008	.0114	.00484	.00031	.00021	.00006
%RSD	.09730	.36156	46.960	11.360	.44420	110.47	1.1071	12.437	90.222	36.431	7.9312

#1	-0.00745	49.102	-0.00142	.00327	.00031	-0.00002	1.0370	.03550	-0.00056	-0.00072	.00074
#2	-0.00744	48.851	-0.00283	.00278	.00031	-0.00013	1.0209	.04235	-0.00012	-0.00043	.00066

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00023	49.448	-0.01651	-0.00087	.04963	-0.00163	-0.00050	247.20	.00203	.00566	.00051
Stddev	.00009	.253	.03567	.00007	.00215	.00001	.00017	1.07	.00048	.00237	.00108
%RSD	39.310	.51239	216.11	7.8526	4.3395	.69340	34.378	.43107	23.727	41.844	213.71

#1	-0.00017	49.268	-0.04173	-0.00092	.05115	-0.00163	-0.00062	247.95	.00169	.00734	-0.00026
#2	-0.00029	49.627	.00872	-0.00082	.04811	-0.00162	-0.00038	246.45	.00237	.00399	.00127

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.0673	-0.00921	.00518	-0.04526	-0.09685	-0.00195	.00030	4.9354	-0.01296	.00076	W 10.526
Stddev	.1210	.00197	.00095	.01115	.02386	.00035	.00001	.0146	.00039	.00193	.003
%RSD	2.3885	21.418	18.314	24.638	24.638	18.076	4.6470	.29497	3.0346	252.98	.02453

#1	5.1529	-0.00781	.00451	-0.03737	-0.07998	-0.00170	.00029	4.9251	-.01324	-.00060	10.524
#2	4.9817	-0.01060	.00585	-0.05314	-1.1372	-0.00220	.00031	4.9456	-.01268	.00213	10.527

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value											10.000
Range											5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00330	-0.00022	-.12643
Stddev	.00019	.00019	.00205
%RSD	5.8910	85.358	1.6214

#1	.00316	-.00035	-.12788
#2	.00343	-0.00009	-.12498

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2996.8	51481.	6154.0
Stddev	8.0	2.	39.0
%RSD	.26777	.00317	.63330

#1	3002.5	51479.	6126.4
#2	2991.1	51482.	6181.5

Sample Name: CCV-3296664 Acquired: 5/30/2015 17:00:41 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50171	.54324	1.0134	.52864	.48211	.47690	-.00022	4.8182	.51651	.51532	.51548	.50450	2.4096
Stddev	.00271	.00292	.0047	.00225	.00449	.00308	.00010	.0444	.00190	.00449	.00261	.00071	.0258
%RSD	.54044	.53739	.45965	.42582	.93053	.64568	44.040	.92113	.36849	.87226	.50618	.14047	1.0689

#1	.49979	.54117	1.0167	.52705	.48528	.47907	-.00015	4.8496	.51517	.51214	.51363	.50501	2.4278
#2	.50362	.54530	1.0101	.53023	.47894	.47472	-.00029	4.7868	.51786	.51849	.51732	.50400	2.3914

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	47.978	.96420	19.974	.51054	.50504	5.0029	.51074	1.0571	1.0175	.00360	1.0403	1.0237	4.7493
Stddev	.309	.00552	.054	.00252	.00320	.0479	.00321	.0096	.0104	.00389	.0083	.0019	.0731
%RSD	.64353	.57280	.26834	.49269	.63371	.95696	.62770	.90860	1.0246	108.06	.79871	.18797	1.5389

#1	48.196	.96810	19.936	.50876	.50278	5.0368	.50848	1.0503	1.0101	.00085	1.0345	1.0223	4.8010
#2	47.760	.96029	20.012	.51231	.50731	4.9691	.51301	1.0639	1.0249	.00636	1.0462	1.0251	4.6976

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.163	1.0261	.48245	-.00119	.50861	1.0456	-.02180	.52137	.50328	.47141
Stddev	.156	.0078	.00432	.00107	.00173	.0100	.00114	.00315	.00529	.00639
%RSD	1.5389	.76114	.89634	90.424	.34080	.95396	5.2111	.60359	1.0512	1.3549

#1	10.274	1.0205	.48551	-.00043	.50738	1.0385	-.02100	.51915	.49954	.47593
#2	10.053	1.0316	.47939	-.00194	.50984	1.0526	-.02261	.52360	.50702	.46690

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3003.6	51573.	6293.5
Stddev	6.8	112.	52.1
%RSD	.22683	.21634	.82776

#1	3008.4	51651.	6256.7
#2	2998.7	51494.	6330.4

Sample Name: CCB Acquired: 5/30/2015 17:03:09 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0033	-0.0024	.00335	.00234	.00011	-0.00017	.00118	-0.00049	-0.00029	.00011	-0.00022	-0.00057	.00144
Stddev	.00009	.00022	.00234	.00001	.00017	.00003	.00241	.00159	.00032	.00017	.00030	.00064	.00017
%RSD	26.258	88.517	69.967	.24465	152.22	15.658	203.81	326.18	109.90	145.60	137.40	111.10	11.955

#1	-0.0039	-0.0040	.00500	.00234	.00023	-0.00015	-0.00052	.00064	-0.00052	.00023	-0.00043	-.00102	.00156
#2	-0.0027	-0.00009	.00169	.00233	-0.00001	-0.00018	.00289	-.00161	-0.00007	.00000	-0.00001	-.00012	.00132

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.03184	-0.00163	-0.00338	-0.00009	.00021	.04238	-0.00043	.00278	-0.00033	.00383	-0.00147	-0.00258	-.01427
Stddev	.03184	.00074	.00074	.00007	.00037	.00545	.00043	.00089	.00024	.00244	.00083	.00657	.04265
%RSD	100.01	45.441	22.016	86.158	177.93	12.867	99.567	32.007	73.589	63.654	56.787	254.81	298.98

#1	-0.00932	-0.00111	-0.00391	-0.00014	-0.00005	.04624	-0.00073	.00215	-0.00050	.00211	-0.00206	-.00722	.01589
#2	-.05436	-0.00216	-0.00285	-0.00003	.00047	.03853	-0.00013	.00341	-0.00016	.00556	-0.00088	.00207	-.04442

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.03053	.00022	.00008	.00162	.00013	.00049	.01616	-0.00029	-0.00014	.00076
Stddev	.09127	.00026	.00000	.00063	.00009	.00174	.01032	.00048	.00009	.00007
%RSD	298.98	119.89	.32801	38.684	71.348	357.94	63.879	167.10	66.146	9.0100

#1	.03401	.00003	.00008	.00207	.00006	-0.00075	.00886	.00005	-0.00008	.00081
#2	-.09507	.00041	.00008	.00118	.00019	.00172	.02345	-.00062	-0.00021	.00071

Check ?	Chk Pass									
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3015.5	52047.	6163.1
Stddev	.4	828.	40.2
%RSD	.01380	1.5912	.65305

#1	3015.2	52633.	6191.6
#2	3015.8	51461.	6134.7

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01000	.11025	.01723	.10656	.01000	.00085	.10415	.20308	.00491	.01051	.01032	.01489
Stddev	.00062	.00007	.00051	.00129	.00021	.00004	.00089	.00207	.00018	.00009	.00020	.00075
%RSD	6.2147	.06691	2.9737	1.2081	2.1070	4.8985	.85473	1.0182	3.6018	.83348	1.9490	5.0451

#1	.00956	.11030	.01759	.10565	.01015	.00082	.10352	.20454	.00479	.01057	.01018	.01436
#2	.01044	.11020	.01687	.10747	.00985	.00088	.10478	.20162	.00504	.01045	.01046	.01542

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10562	3.0231	.00836	.21082	.01062	.02023	1.0981	.04141	3.0231	.00848	.00173	.00702
Stddev	.00044	.0502	.00235	.00739	.00008	.00019	.0156	.00007	.0236	.00003	.00653	.00179
%RSD	.41850	1.6618	28.070	3.5051	.74776	.93855	1.4234	.16865	.78134	.39172	378.40	25.522

#1	.10593	2.9876	.00670	.20559	.01057	.02010	1.1092	.04146	3.0064	.00846	-.00289	.00829
#2	.10530	3.0586	.01002	.21604	.01068	.02036	1.0871	.04136	3.0398	.00850	.00634	.00575

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01707	4.7280	1.0118	.10451	.01029	.01797	.01032	.01545	F .04141	.01060	.02218	.01336
Stddev	.00362	.00524	.0112	.00020	.00002	.00332	.00024	.00167	.01824	.00071	.00029	.00025
%RSD	21.185	1.1092	1.1092	.19037	.19515	18.485	2.3711	10.812	44.031	6.6538	1.3192	1.8517

#1	.01452	.46910	1.0039	.10465	.01031	.02032	.01049	.01426	.05431	.01110	.02198	.01353
#2	.01963	.47651	1.0197	.10437	.01028	.01562	.01014	.01663	.02852	.01010	.02239	.01318

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass							
Value									.06000			
Range									-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2995.8	52003.	6118.5
Stddev	3.2	745.	13.6
%RSD	.10534	1.4333	.22149

#1	2993.6	52530.	6108.9
#2	2998.1	51476.	6128.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.00026	W .01905	.00027	.00104	.00045	-.00013	-.00093	W .12766	.00007
Stddev	.00040	.00037	.00349	.00024	.00002	.00000	.00460	.00123	.00011
%RSD	155.80	1.9407	1291.5	22.776	4.7196	1.9435	496.67	.96458	151.60

#1	-.00054	.01879	.00274	.00087	.00047	-.00014	.00233	.12679	-.00001
#2	.00003	.01931	-.00220	.00121	.00044	-.00013	-.00418	.12853	.00015

Check ?	Chk Fail	Chk Warn	Chk Pass	Chk Warn	Chk Pass				
High Limit	.01000	.01647						.02706	
Low Limit	-.00010	-.05000						-.10000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00007	F -.00012	F .03409	W .02794	-.05173	-.00283	.00671	W .00039	.00012
Stddev	.00024	.00003	.00055	.00068	.01986	.00084	.00657	.00000	.00003
%RSD	333.58	24.251	1.6128	2.4222	38.394	29.586	97.797	.09244	26.832

#1	-.00010	-.00014	.03448	.02842	-.03769	-.00223	.00207	.00039	.00010
#2	.00024	-.00010	.03370	.02746	-.06578	-.00342	.01136	.00039	.00015

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit		.01000	.01000	.01710				.00023	
Low Limit		-.00010	-.01000	-.05000				-.00500	

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03464	-.00055	.00240	-.00034	W .00656	-.00256	.00309	W -.00584	-.01250
Stddev	.00051	.00075	.00134	.00003	.00223	.00509	.00040	.00327	.00699
%RSD	1.4795	136.84	55.760	8.2681	33.979	198.58	12.872	55.948	55.948

#1	.03427	-.00002	.00334	-.00032	.00813	.00104	.00337	-.00815	-.01744
#2	.03500	-.00107	.00145	-.00036	.00498	-.00616	.00281	-.00353	-.00755

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	None
High Limit					.00500			.07360	
Low Limit					-.00500			-.00500	

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00094	.00042	W .00275	.00022	-.00047	-.00027	-.00028	.00346	-.00147
Stddev	.00041	.00000	.00126	.00002	.00170	.00078	.00059	.00004	.00023
%RSD	43.491	.47551	45.862	11.488	365.35	284.07	210.81	1.1708	15.383

#1	.00123	.00042	.00186	.00023	-.00167	.00028	.00014	.00349	-.00163
#2	.00065	.00043	.00364	.00020	.00074	-.00083	-.00069	.00343	-.00131

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.00000						
Low Limit			-.00500						

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3027.3	52318.	6108.2
Stddev	9.4	407.	.2
%RSD	.30895	.77729	.00279

#1	3033.9	52605.	6108.1
#2	3020.7	52030.	6108.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04437	2.0333	1.0161	1.0568	1.9601	.04840	2.0204	47.872	.10391
Stddev	.00006	.0047	.0004	.0009	.0080	.00002	.0047	.180	.00008
%RSD	.13655	.23277	.04428	.08363	.40909	.03698	.23486	.37629	.07647

#1	.04433	2.0300	1.0158	1.0562	1.9658	.04841	2.0170	48.000	.10385
#2	.04442	2.0367	1.0165	1.0575	1.9544	.04839	2.0237	47.745	.10397

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49799	F .19738	F .28393	.99277	49.197	.98129	49.349	.50420	1.0406
Stddev	.00042	.00026	.00170	.00899	.086	.00087	.188	.00005	.0008
%RSD	.08373	.12940	.59932	.90566	.17496	.08901	.38187	.01086	.07471

#1	.49829	.19756	.28273	.98641	49.257	.98067	49.216	.50423	1.0412
#2	.49770	.19720	.28514	.99913	49.136	.98190	49.482	.50416	1.0401

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass					
High Limit		.05750	.28000						
Low Limit		.04275	.21500						

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	53.624	.49260	10.681	.50695	2.0642	.53607	2.0991	9.8958	21.177
Stddev	.431	.00018	.022	.00231	.0124	.00537	.0133	.0866	.185
%RSD	.80430	.03659	.20541	.45567	.60208	1.0013	.63319	.87548	.87548

#1	53.319	.49247	10.666	.50858	2.0554	.53228	2.0897	9.8345	21.046
#2	53.929	.49273	10.697	.50532	2.0730	.53987	2.1085	9.9570	21.308

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0663	.97892	1.0093	1.0117	2.0589	2.0697	.51327	.48968	.46418
Stddev	.0039	.00347	.0017	.0000	.0156	.0633	.00104	.00039	.00198
%RSD	.18662	.35416	.16892	.00181	.75920	3.0576	.20322	.08054	.42700

#1	2.0636	.98138	1.0081	1.0117	2.0478	2.0250	.51401	.48941	.46278
#2	2.0691	.97647	1.0105	1.0117	2.0699	2.1145	.51253	.48996	.46559

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2935.2	50572.	6140.3
Stddev	.3	423.	25.0
%RSD	.01187	.83724	.40729

#1	2935.4	50273.	6122.6
#2	2934.9	50872.	6157.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00044	.05944	.00104	.14845	.05892	-0.00021	-0.00285	64.451	-0.00042
Stddev	.00036	.00094	.00202	.00264	.00042	.00013	.00006	.058	.00001
%RSD	81.690	1.5825	194.20	1.7772	.70511	63.156	2.2093	.09066	2.8339

#1	-0.0019	.05877	-0.00039	.14659	.05862	-0.00012	-0.00290	64.410	-0.00041
#2	-0.00070	.06010	.00247	.15032	.05921	-0.00031	-0.00281	64.493	-0.00043

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00731	.00133	.00673	.60003	54.239	.02543	18.737	.08032	.00172
Stddev	.00001	.00000	.00039	.01086	.136	.00097	.017	.00005	.00039
%RSD	.18582	.11965	5.8322	1.8093	.25086	3.8000	.08950	.05737	22.906

#1	.00732	.00133	.00646	.60770	54.142	.02611	18.725	.08035	.00144
#2	.00730	.00133	.00701	.59235	54.335	.02474	18.749	.08028	.00199

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	141.74	.00939	W 2.7155	.00231	34.553	.00096	.00678	6.1851	13.236
Stddev	.05	.00011	.0129	.00057	.140	.00094	.00011	.0976	.209
%RSD	.03688	1.2006	.47456	24.811	.40493	97.182	1.6869	1.5775	1.5775

#1	141.78	.00947	2.7063	.00272	34.454	.00030	.00670	6.2541	13.384
#2	141.70	.00931	2.7246	.00191	34.652	.00163	.00686	6.1161	13.089

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00264	.41505	.00410	.00053	-.00629	-.03601	-.00048	.03137	.00031
Stddev	.00163	.00171	.00189	.00017	.00014	.02174	.00030	.00109	.00016
%RSD	61.979	.41192	46.027	31.939	2.1593	60.368	61.566	3.4660	50.986

#1	.00148	.41384	.00543	.00041	-.00619	-.05138	-.00069	.03061	.00042
#2	.00379	.41626	.00276	.00064	-.00639	-.02064	-.00027	.03214	.00020

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2928.6	50928.	6239.7
Stddev	14.9	174.	5.2
%RSD	.50987	.34096	.08338

#1	2939.1	51050.	6236.0
#2	2918.0	50805.	6243.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00145	.02367	-.00469	1.7435	.08263	-.00017	-.00317	35.402	.00112
Stddev	.00041	.00043	.00227	.0043	.00015	.00013	.00199	.021	.00031
%RSD	28.128	1.7969	48.316	.24496	.18573	72.829	62.719	.05862	27.834

#1	.00116	.02337	-.00309	1.7405	.08252	-.00008	-.00458	35.417	.00090
#2	.00173	.02397	-.00630	1.7465	.08274	-.00026	-.00177	35.387	.00134

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00273	.00179	1.2094	.08132	W 156.39	.09010	52.411	.00834	.12381
Stddev	.00002	.00004	.0019	.00078	.22	.00002	.033	.00002	.00110
%RSD	.87622	2.3971	.15604	.95645	.14362	.02637	.06324	.24639	.88759

#1	-.00274	.00182	1.2081	.08186	156.55	.09009	52.388	.00833	.12303
#2	-.00271	.00176	1.2108	.08077	156.23	.09012	52.435	.00836	.12459

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2941.2	.02013	W 27.764	.00124	F 430.22	.00827	.01740	17.996	38.511
Stddev	6.2	.00034	.029	.00101	1.16	.00127	.00377	.065	.139
%RSD	.21047	1.7016	.10313	81.564	.27013	15.400	21.692	.35970	.35970

#1	2936.9	.01988	27.744	.00196	429.40	.00917	.02007	17.950	38.413
#2	2945.6	.02037	27.784	.00053	431.04	.00737	.01473	18.041	38.609

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00		2.0000		200.00				
Low Limit	11.000		-1.0000		-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.29134	.58248	.00086	.00010	-.00918	-.03732	-.00166	.02645	.00083
Stddev	.00002	.00033	.00091	.00029	.00277	.02439	.00074	.00030	.00059
%RSD	.00845	.05614	105.93	282.78	30.133	65.355	44.458	1.1385	70.987

#1	.29132	.58225	.00022	.00031	-.00723	-.02008	-.00114	.02623	.00041
#2	.29135	.58271	.00151	-.00010	-.01114	-.05457	-.00218	.02666	.00124

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2589.6	43810.	5932.7
Stddev	9.0	43.	22.6
%RSD	.34831	.09894	.38156

#1	2583.2	43780.	5916.6
#2	2595.9	43841.	5948.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00027	.00491	.00243	.37914	.01703	-.00021	-.00003	7.3487	-.00045
Stddev	.00049	.00012	.00282	.00127	.00011	.00010	.00144	.0432	.00002
%RSD	182.90	2.3810	116.33	.33513	.63359	48.691	4381.4	.58839	3.3752

#1	-.00008	.00483	.00043	.38004	.01695	-.00014	.00099	7.3181	-.00044
#2	.00062	.00499	.00442	.37824	.01710	-.00028	-.00105	7.3793	-.00046

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00098	.00051	.24638	.02091	31.337	.01834	11.646	.00168	.02512
Stddev	.00020	.00005	.00012	.00348	.167	.00027	.056	.00003	.00016
%RSD	19.841	8.8648	.04776	16.645	.53329	1.4611	.48173	1.9934	.62616

#1	-.00112	.00054	.24647	.02337	31.219	.01815	11.607	.00170	.02523
#2	-.00085	.00048	.24630	.01845	31.455	.01853	11.686	.00165	.02501

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 594.23	.00435	W 5.7175	-.00074	88.942	-.00173	.00050	3.5943	7.6918
Stddev	2.10	.00028	.0107	.00061	.277	.00005	.00118	.0654	.1399
%RSD	.35282	6.4086	.18803	83.606	.31146	2.9177	234.39	1.8190	1.8190

#1	592.74	.00415	5.7251	-.00030	88.746	-.00169	.00134	3.5481	7.5929
#2	595.71	.00455	5.7099	-.00117	89.138	-.00176	-.00033	3.6405	7.7908

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass					
High Limit	500.00		2.0000						
Low Limit	11.000		-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06281	.11835	.00288	.00031	-.00145	-.03292	-.00161	.00607	-.00078
Stddev	.00115	.00065	.00181	.00014	.00023	.00330	.00019	.00080	.00009
%RSD	1.8266	.54616	62.705	43.726	16.116	10.031	12.128	13.216	12.051

#1	.06200	.11789	.00416	.00021	-.00162	-.03059	-.00174	.00664	-.00072
#2	.06362	.11881	.00160	.00041	-.00129	-.03525	-.00147	.00550	-.00085

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2829.0	47929.	5972.0
Stddev	5.8	23.	12.8
%RSD	.20623	.04791	.21375

#1	2833.2	47945.	5981.0
#2	2824.9	47913.	5963.0

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05085	1.8011	W 2.3912	1.0664	2.6472	2.0402	.04741	F 1.9450	80.934
Stddev	.00115	.0005	.0231	.0029	.0042	.0087	.00031	.0029	.231
%RSD	2.2701	.02741	.96413	.26999	.15891	.42450	.65721	.14975	.28551

#1	.05167	1.8014	2.3749	1.0684	2.6442	2.0463	.04763	1.9430	81.097
#2	.05003	1.8007	2.4075	1.0644	2.6501	2.0340	.04719	1.9471	80.771

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00					.10000	
Low Limit			3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10699	.46800	W .16857	1.4438	1.0143	W 202.49	1.1153	95.128	.50613
Stddev	.00032	.00030	.00002	.0114	.0054	1.05	.0108	.526	.00155
%RSD	.29821	.06389	.01145	.79096	.53341	.51780	.96528	.55297	.30571

#1	.10677	.46779	.16856	1.4518	1.0181	203.23	1.1229	95.500	.50722
#2	.10722	.46821	.16859	1.4357	1.0104	201.75	1.1077	94.756	.50504

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit			.10000			100.00			
Low Limit			-.01000			-.50000			

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.1383	W 2945.6	.48083	W 37.749	.44255	F 423.38	.53536	2.2244	26.560
Stddev	.0016	10.7	.00080	.064	.00031	.03	.00338	.0088	.163
%RSD	.13912	.36355	.16620	.16993	.06977	.00713	.63088	.39749	.61462

#1	1.1372	2953.2	.48140	37.704	.44277	423.36	.53775	2.2182	26.675
#2	1.1394	2938.0	.48027	37.794	.44233	423.40	.53297	2.2307	26.445

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		500.00		2.0000		200.00			
Low Limit		11.000		-1.0000		-.20000			

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	56.839	W 2.1541	1.5535	1.0089	1.0164	1.6274	2.0406	.52014	.52091
Stddev	.349	.0003	.0086	.0123	.0034	.0025	.0217	.00158	.00335
%RSD	.61462	.01523	.55635	1.2175	.33354	.15459	1.0654	.30407	.64342

#1	57.086	2.1538	1.5596	1.0175	1.0188	1.6256	2.0253	.52125	.52328
#2	56.591	2.1543	1.5474	1.0002	1.0140	1.6292	2.0560	.51902	.51854

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		2.0000							
Low Limit		-.05000							

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.45594
Stddev	.00385
%RSD	.84510

#1	.45866
#2	.45321

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69780-A-1-B MS Acquired: 5/30/2015 17:22:07 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: broanderl Prep Date: Custom ID2: Custom ID3:
Comment: 279359 200.7

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2546.3	43612.	5924.7
Stddev	.7	83.	17.5
%RSD	.02751	.19000	.29541
#1	2546.8	43554.	5937.1
#2	2545.8	43671.	5912.4

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05034	1.8098	W 2.4331	1.0732	2.6264	2.0583	.04778	F 1.9561	81.189
Stddev	.00017	.0077	.0205	.0024	.0142	.0100	.00039	.0061	.446
%RSD	.33415	.42417	.84084	.22527	.54062	.48460	.82264	.31063	.54888

#1	.05022	1.8152	2.4476	1.0715	2.6364	2.0654	.04805	1.9604	81.504
#2	.05046	1.8044	2.4186	1.0749	2.6164	2.0512	.04750	1.9518	80.874

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00					.10000	
Low Limit			3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10753	.47004	W .17043	1.4352	1.0083	W 202.72	1.1228	95.064	.50956
Stddev	.00118	.00100	.00043	.0093	.0020	.89	.0035	.121	.00122
%RSD	1.0931	.21265	.25062	.64678	.20054	.44059	.30977	.12704	.23992

#1	.10836	.47075	.17012	1.4286	1.0098	203.35	1.1253	95.149	.51042
#2	.10670	.46933	.17073	1.4417	1.0069	202.09	1.1203	94.979	.50869

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit			.10000			100.00			
Low Limit			-.01000			-.50000			

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.1378	W 2941.2	.48201	W 37.714	.44456	F 420.65	.54236	2.2426	26.413
Stddev	.0037	7.6	.00068	.237	.00571	2.41	.00533	.0262	.062
%RSD	.32493	.25966	.14065	.62876	1.2842	.57378	.98256	1.1697	.23425

#1	1.1404	2946.6	.48249	37.882	.44860	422.36	.54613	2.2611	26.456
#2	1.1352	2935.8	.48153	37.547	.44053	418.94	.53860	2.2240	26.369

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		500.00		2.0000		200.00			
Low Limit		11.000		-1.0000		-.20000			

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	56.523	W 2.1730	1.5602	1.0211	1.0178	1.6455	2.0625	.52315	.52014
Stddev	.132	.0157	.0078	.0015	.0031	.0149	.0517	.00324	.00438
%RSD	.23425	.72175	.50195	.14959	.30879	.90631	2.5081	.61965	.84290

#1	56.617	2.1841	1.5658	1.0201	1.0200	1.6560	2.0991	.52545	.52324
#2	56.429	2.1619	1.5547	1.0222	1.0156	1.6349	2.0259	.52086	.51704

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		2.0000							
Low Limit		-.05000							

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.45308
Stddev	.00106
%RSD	.23463

#1	.45383
#2	.45233

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69780-A-1-C MSD Acquired: 5/30/2015 17:25:42 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: broanderl Prep Date: Custom ID2: Custom ID3:
Comment: 279359 200.7

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2564.5	43657.	5895.2
Stddev	12.4	163.	41.2
%RSD	.48157	.37372	.69890
#1	2555.8	43542.	5866.1
#2	2573.2	43773.	5924.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00017	1.9499	.00261	.01070	.02618	.00010	.00024	105.19	.00080
Stddev	.00018	.0041	.00454	.00224	.00005	.00000	.00124	.51	.00001
%RSD	100.71	.21222	173.64	20.931	.19286	.80809	512.02	.48722	1.5620

#1	.00005	1.9528	-.00060	.01229	.02614	.00010	.00112	104.83	.00079
#2	.00030	1.9470	.00582	.00912	.02621	.00010	-.00063	105.56	.00080

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00607	.00090	.15570	1.0810	1.6604	.00376	7.9140	.74452	-.00122
Stddev	.00008	.00026	.00071	.0245	.0789	.00054	.0225	.00279	.00002
%RSD	1.2720	28.787	.45644	2.2676	4.7514	14.248	.28393	.37469	1.4707

#1	.00612	.00072	.15519	1.0637	1.6046	.00338	7.8982	.74255	-.00120
#2	.00601	.00108	.15620	1.0983	1.7162	.00414	7.9299	.74649	-.00123

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.4455	.01116	.05924	.00568	98.540	.00158	.00312	5.1751	11.075
Stddev	.0011	.00025	.00278	.00179	.428	.00218	.00472	.0968	.207
%RSD	.01677	2.2112	4.6984	31.592	.43455	138.04	151.59	1.8710	1.8710

#1	6.4463	.01133	.05727	.00695	98.843	.00004	-.00022	5.1066	10.928
#2	6.4448	.01098	.06120	.00441	98.237	.00312	.00646	5.2435	11.221

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00402	.29520	.00518	.00394	-.00841	W -.06125	.00085	.15258	.00010
Stddev	.00019	.00126	.00014	.00034	.00466	.01539	.00070	.00083	.00017
%RSD	4.7631	.42798	2.6187	8.5733	55.385	25.123	81.986	.54366	169.89

#1	.00388	.29431	.00527	.00370	-.00512	-.05037	.00134	.15316	.00022
#2	.00415	.29610	.00508	.00418	-.01171	-.07213	.00036	.15199	-.00002

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2970.5	51121.	6166.6
Stddev	11.2	16.	58.7
%RSD	.37732	.03047	.95204

#1	2978.4	51132.	6208.1
#2	2962.6	51110.	6125.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0012	1.7804	-0.00192	.01245	.02081	-0.00008	.00560	355.54	-0.00049
Stddev	.00053	.0082	.00279	.00080	.00035	.00007	.00022	1.46	.00012
%RSD	423.15	.46101	145.45	6.3890	1.6901	90.047	3.9212	.41046	23.306

#1	-0.00050	1.7746	.00005	.01189	.02106	-0.00012	.00544	354.50	-0.00041
#2	.00025	1.7862	-.00389	.01302	.02056	-0.00003	.00575	356.57	-0.00057

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00250	.00111	.03047	.12999	3.3985	.01907	19.990	1.1528	.00019
Stddev	.00011	.00007	.00049	.00299	.0066	.00028	.129	.0028	.00021
%RSD	4.2747	5.9216	1.6065	2.2969	.19503	1.4916	.64590	.24663	110.67

#1	.00257	.00107	.03082	.12788	3.3938	.01887	19.898	1.1508	.00033
#2	.00242	.00116	.03013	.13210	3.4032	.01927	20.081	1.1548	.00004

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.247	.00650	.07820	.00722	F 335.94	.00607	.00756	.31419	.67237
Stddev	.444	.00014	.00313	.00078	.51	.00137	.00464	.00227	.00486
%RSD	2.5768	2.2013	4.0038	10.871	.15183	22.646	61.347	.72224	.72224

#1	16.933	.00660	.07599	.00666	335.58	.00510	.01084	.31579	.67580
#2	17.562	.00640	.08041	.00777	336.30	.00704	.00428	.31259	.66893

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00612	.84355	.00585	.00132	-.00567	-.04320	.00057	.01736	.00243
Stddev	.00053	.00397	.00076	.00000	.00090	.05764	.00036	.00135	.00120
%RSD	8.6115	.47070	12.941	.12414	15.949	133.45	62.426	7.7697	49.273

#1	.00649	.84075	.00531	.00132	-.00631	-.00244	.00083	.01831	.00159
#2	.00575	.84636	.00638	.00132	-.00503	-.08396	.00032	.01640	.00328

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2827.1	50119.	6202.9
Stddev	5.2	582.	39.4
%RSD	.18228	1.1611	.63468

#1	2830.7	50530.	6175.0
#2	2823.4	49707.	6230.7

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0112	35.465	.01723	.00631	.01323	.00553	.00126	204.05	.03856
Stddev	.00033	.163	.00078	.00126	.00003	.00009	.00031	.77	.00042
%RSD	29.521	.45884	4.5219	19.937	.24703	1.5947	24.743	.37503	1.0783

#1	-0.0089	35.350	.01668	.00720	.01320	.00546	.00148	203.51	.03827
#2	-0.0136	35.580	.01778	.00542	.01325	.00559	.00104	204.59	.03886

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.16220	.00388	7.2114	47.651	2.6648	.01626	33.127	9.7586	-0.0379
Stddev	.00213	.00064	.0457	.295	.0855	.00009	.158	.0257	.00061
%RSD	1.3150	16.584	.63401	.61985	3.2090	.53794	.47759	.26372	16.159

#1	.16069	.00342	7.2438	47.442	2.6043	.01620	33.239	9.7768	-0.0422
#2	.16371	.00433	7.1791	47.860	2.7252	.01632	33.015	9.7404	-0.0336

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.980	.18234	.05178	.03516	F 319.54	-0.00438	.00702	12.520	26.793
Stddev	.313	.00294	.00352	.00145	1.21	.00123	.00133	.073	.156
%RSD	2.4106	1.6143	6.8042	4.1289	.37774	27.949	19.025	.58122	.58122

#1	12.759	.18026	.05427	.03414	320.39	-0.00525	.00607	12.469	26.683
#2	13.202	.18442	.04929	.03619	318.68	-0.00352	.00796	12.572	26.903

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00202	.84139	.00558	.00029	W -.01445	W -.07858	.00006	4.2515	.00088
Stddev	.00036	.00373	.00155	.00061	.00034	.00966	.00039	.0380	.00060
%RSD	18.026	.44309	27.715	210.04	2.3423	12.291	642.48	.89292	68.525

#1	.00177	.83876	.00448	.00072	-0.1421	-0.08541	-0.00021	4.2784	.00131
#2	.00228	.84403	.00667	-0.0014	-0.1469	-0.07175	.00033	4.2247	.00045

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000	45.000			
Low Limit					-0.1000	-0.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2943.4	51603.	6299.9
Stddev	5.1	155.	55.5
%RSD	.17264	.30016	.88108

#1	2947.0	51494.	6339.2
#2	2939.8	51713.	6260.7

Sample Name: CCVH-3294468 Acquired: 5/30/2015 17:37:16 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0699	49.846	.00269	.00416	.00061	.00002	1.0022	.08752	-0.0040	-0.0035	.00039	-0.00060	49.725
Stddev	.00044	.782	.00346	.00027	.00023	.00019	.0057	.01177	.00006	.00031	.00025	.00033	1.024
%RSD	6.3234	1.5690	128.63	6.4252	37.302	816.29	.57407	13.447	14.700	88.440	63.765	55.568	2.0601

#1	-0.00730	49.293	.00024	.00435	.00077	.00016	.99817	.09584	-0.00036	-0.00013	.00021	-0.00036	49.001
#2	-0.00668	50.399	.00514	.00397	.00045	-0.00011	1.0063	.07920	-0.00045	-0.00058	.00056	-0.00083	50.449

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04244	-0.00206	.04804	-0.00023	-0.00048	250.27	.00235	.00575	.00107	5.0146	-0.01224	.01190	-0.03570
Stddev	.02264	.00092	.00657	.00018	.00025	3.02	.00045	.00224	.00013	.0122	.00049	.00021	.00402
%RSD	53.350	44.601	13.671	78.669	50.551	1.2050	19.321	39.038	11.781	.24311	4.0013	1.7368	11.266

#1	.05845	-0.0141	.05268	-0.0010	-0.0031	248.14	.00203	.00416	.00116	5.0060	-0.01190	.01204	-0.03855
#2	.02643	-0.00271	.04340	-0.00035	-0.00066	252.40	.00267	.00733	.00098	5.0232	-0.01259	.01175	-0.03286

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.07640	-0.00110	.00066	4.9302	-0.01273	.00101	10.338	.00257	.00057	-.12626
Stddev	.00861	.00069	.00008	.1028	.00016	.00145	.140	.00096	.00011	.00691
%RSD	11.266	62.897	12.031	2.0845	1.2604	143.39	1.3586	37.300	20.268	5.4702

#1	-0.08249	-0.00061	.00072	5.0029	-0.01284	.00203	10.438	.00189	.00065	-.13114
#2	-0.07032	-0.00158	.00061	4.8576	-0.01262	-0.00001	10.239	.00324	.00049	-.12138

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2947.4	50427.	5909.6
Stddev	14.0	622.	71.4
%RSD	.47385	1.2342	1.2084

#1	2957.2	49987.	5960.1
#2	2937.5	50867.	5859.1

Sample Name: CCV-3296664 Acquired: 5/30/2015 17:39:52 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48894	.54169	.99238	.51838	.48043	.47373	.00025	4.8199	.51130	.50708	.50332	.49082	2.4021
Stddev	.00111	.01306	.02516	.01262	.00009	.00023	.00047	.0045	.00989	.00627	.00109	.00183	.0018
%RSD	.22757	2.4112	2.5350	2.4342	.01912	.04948	187.20	.09231	1.9344	1.2374	.21588	.37382	.07522

#1	.48972	.55093	1.0102	.52731	.48037	.47357	.00058	4.8168	.51830	.51152	.50409	.49211	2.4034
#2	.48815	.53246	.97460	.50946	.48050	.47390	-.00008	4.8231	.50431	.50265	.50255	.48952	2.4008

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.076	.96729	19.594	.50401	.49761	5.1398	.50106	1.0425	1.0032	.02481	1.0204	1.0049	4.7936
Stddev	.145	.00128	.100	.00109	.00745	.0195	.00498	.0138	.0108	.00242	.0132	.0067	.0041
%RSD	.30198	.13271	.51000	.21629	1.4973	.37871	.99427	1.3279	1.0798	9.7700	1.2946	.67084	.08478

#1	47.973	.96638	19.664	.50324	.50287	5.1535	.50458	1.0523	1.0108	.02653	1.0298	1.0096	4.7908
#2	48.179	.96819	19.523	.50479	.49234	5.1260	.49753	1.0327	.99553	.02310	1.0111	1.0001	4.7965

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.258	1.0107	.48120	-.00200	.50055	1.0222	.00246	.51423	.49576	.47901
Stddev	.009	.0091	.00015	.00109	.00083	.0059	.02837	.00126	.00227	.00080
%RSD	.08478	.89724	.03090	54.352	.16544	.57883	1155.5	.24464	.45813	.16703

#1	10.252	1.0171	.48130	-.00277	.50113	1.0264	.02252	.51512	.49736	.47845
#2	10.265	1.0042	.48109	-.00123	.49996	1.0180	-.01761	.51334	.49415	.47958

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2972.0	51235.	6100.8
Stddev	38.8	27.	4.9
%RSD	1.3045	.05262	.07969

#1	2944.6	51216.	6097.3
#2	2999.4	51254.	6104.2

Sample Name: CCB Acquired: 5/30/2015 17:42:20 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0049	.00064	-0.0077	.00290	-0.00005	.00000	.00287	.00206	-0.00025	.00021	-0.00007	-0.00090	-0.00079
Stddev	.00080	.00000	.00647	.00083	.00024	.00005	.00114	.00028	.00011	.00017	.00042	.00055	.00014
%RSD	161.20	.71615	844.79	28.572	516.99	2335.5	39.862	13.742	43.824	80.468	571.80	61.024	17.576

#1	.00007	.00065	-.00534	.00232	.00012	-.00003	.00206	.00226	-.00032	.00009	.00022	-.00051	-.00089
#2	-.00106	.00064	.00381	.00349	-.00021	.00004	.00367	.00186	-.00017	.00034	-.00037	-.00129	-.00069

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.01362	-0.00100	.00571	-0.00001	.00016	.13686	-0.00046	.00087	-0.00134	.01605	-0.00253	.00252	-0.01837
Stddev	.01635	.00038	.00480	.00005	.00013	.00597	.00026	.00115	.00070	.00127	.00236	.01238	.01310
%RSD	120.08	37.690	84.057	886.50	84.676	4.3639	55.817	131.92	52.191	7.9207	93.276	491.64	71.274

#1	-.00206	-.00073	.00911	.00003	.00006	.14109	-.00064	.00006	-.00084	.01515	-.00420	.01127	-.00911
#2	-.02518	-.00127	.00232	-.00004	.00025	.13264	-.00028	.00168	-.00183	.01694	-.00086	-.00623	-.02764

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.03932	.00055	.00018	.00377	.00031	.00087	-0.01242	-0.00003	.00049	-0.00139
Stddev	.02803	.00112	.00011	.00126	.00011	.00168	.01318	.00043	.00040	.00111
%RSD	71.274	204.32	58.007	33.537	35.710	192.66	106.10	1303.8	81.463	79.769

#1	-.01950	-.00024	.00026	.00287	.00039	-.00032	-.00310	-.00034	.00021	-.00060
#2	-.05914	.00134	.00011	.00466	.00024	.00206	-.02174	.00027	.00077	-.00217

Check ?	Chk Pass									
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2991.7	51874.	6080.6
Stddev	19.1	217.	4.8
%RSD	.63945	.41822	.07921

#1	3005.2	52027.	6084.0
#2	2978.2	51720.	6077.2

Sample Name: CCVL3301032 Acquired: 5/30/2015 17:44:42 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00919	.10936	.01159	.10747	.01008	.00082	.10432	.20004	.00527	.01089	.01051	.01477	.09677	2.9638
Stddev	.00037	.00028	.00048	.00125	.00007	.00007	.00113	.00036	.00029	.00018	.00013	.00001	.00066	.0626
%RSD	4.0492	.25955	4.1075	1.1619	.64805	7.9965	1.0800	.18241	5.5080	1.6151	1.2640	.07352	.68163	2.1140

#1	.00892	.10956	.01125	.10659	.01013	.00086	.10352	.19978	.00506	.01102	.01042	.01478	.09724	3.0081
#2	.00945	.10915	.01193	.10835	.01004	.00077	.10512	.20030	.00547	.01077	.01061	.01476	.09630	2.9195

Check ?	Chk Pass													
Value														
Range														

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00747	.20929	.01046	.02009	1.1515	.04194	3.0801	.00886	.01624	.00735	.01547	.48079	1.0289	.10620
Stddev	.00064	.00168	.00006	.00015	.0169	.00017	.0276	.00071	.00191	.00569	.00389	.00904	.0193	.00144
%RSD	8.6204	.80115	.58590	.73611	1.4681	.41469	.89661	8.0319	11.777	77.329	25.114	1.8796	1.8796	1.3562

#1	.00792	.20810	.01041	.01999	1.1635	.04182	3.0606	.00836	.01489	.00333	.01822	.48718	1.0426	.10519
#2	.00701	.21048	.01050	.02019	1.1396	.04206	3.0996	.00936	.01759	.01138	.01272	.47440	1.0152	.10722

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass								
Value														
Range														

Elem	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01010	.01731	.00995	.01502	.04461	.01000	.02121	.01348
Stddev	.00018	.00072	.00000	.00267	.00232	.00021	.00136	.00124
%RSD	1.8067	4.1733	.02051	17.788	5.1908	2.1293	6.4111	9.1692

#1	.01023	.01680	.00995	.01313	.04625	.01015	.02025	.01435
#2	.00997	.01782	.00995	.01691	.04297	.00985	.02217	.01260

Check ?	Chk Pass							
Value								
Range								

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3009.1	52065.	6059.2
Stddev	3.5	54.	4.0
%RSD	.11631	.10444	.06662

#1	3011.5	52104.	6056.3
#2	3006.6	52027.	6062.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00032	.00355	-0.00039	.00333	-0.00001	-0.00011	-0.00159	.01337	-0.00046
Stddev	.00025	.00009	.00077	.00074	.00028	.00012	.00092	.00333	.00006
%RSD	76.885	2.6541	197.82	22.263	2279.6	107.88	58.044	24.868	13.610

#1	-0.00050	.00361	.00015	.00280	-0.00021	-0.00003	-0.00094	.01102	-0.00051
#2	-0.00015	.00348	-0.00093	.00385	.00018	-0.00019	-0.00224	.01572	-0.00042

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00010	-0.00013	-0.00071	.00107	-0.00513	-0.00300	-0.00010	-0.00004	.00003
Stddev	.00018	.00021	.00018	.00197	.00509	.00002	.00240	.00003	.00010
%RSD	169.62	162.89	24.991	183.60	99.244	.81941	2367.2	81.931	344.46

#1	.00023	.00002	-0.00059	.00247	-0.00153	-0.00298	-0.00180	-0.00002	-0.00004
#2	-0.00002	-0.00028	-0.00084	-0.00032	-0.00873	-0.00302	.00159	-0.00007	.00010

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09574	-0.00042	.00148	-0.00060	.01018	-0.00256	-0.00078	-0.01774	-0.03796
Stddev	.01044	.00028	.00088	.00088	.00162	.00144	.00407	.01499	.03207
%RSD	10.904	68.438	59.131	145.81	15.909	56.042	521.17	84.486	84.486

#1	.10312	-0.00062	.00086	.00002	.01133	-0.00358	.00210	-.02833	-.06063
#2	.08836	-0.00021	.00210	-0.00122	.00904	-0.00155	-0.00366	-0.00714	-0.01528

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00153	.00003	.00120	.00057	-0.00034	.00019	-0.00023	.00036	-0.00054
Stddev	.00010	.00009	.00024	.00025	.00237	.01879	.00077	.00005	.00080
%RSD	6.4928	314.71	20.142	44.085	700.98	9656.3	333.13	13.444	148.90

#1	.00160	.00010	.00103	.00074	-0.00201	-.01309	-0.00078	.00039	.00003
#2	.00146	-0.00004	.00137	.00039	.00134	.01348	.00032	.00032	-0.00111

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3006.5	52511.	6176.1
Stddev	9.9	252.	66.9
%RSD	.33094	.48007	1.0829

#1	2999.5	52689.	6223.4
#2	3013.5	52333.	6128.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04402	2.0037	1.0062	1.0485	1.9432	.04781	1.9923	47.034	.10317
Stddev	.00018	.0094	.0014	.0042	.0278	.00023	.0107	.745	.00047
%RSD	.41578	.46766	.14077	.40022	1.4294	.48864	.53649	1.5849	.45312

#1	.04389	2.0103	1.0072	1.0515	1.9236	.04764	1.9998	46.507	.10350
#2	.04415	1.9971	1.0052	1.0456	1.9629	.04797	1.9847	47.561	.10284

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49570	F .19523	.24699	.94780	48.898	.97484	49.066	.50599	1.0349
Stddev	.00046	.00005	.00055	.00387	.819	.01458	.067	.00312	.0012
%RSD	.09333	.02458	.22092	.40814	1.6752	1.4952	.13659	.61724	.11064

#1	.49603	.19519	.24737	.95053	48.319	.96454	49.113	.50820	1.0357
#2	.49537	.19526	.24660	.94506	49.478	.98515	49.018	.50378	1.0341

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	52.371	.48856	10.627	.50196	2.0393	.53062	2.0873	9.6375	20.624
Stddev	.485	.00018	.030	.00106	.0095	.00076	.0153	.1109	.237
%RSD	.92573	.03765	.28213	.21022	.46727	.14303	.73253	1.1504	1.1504

#1	52.028	.48843	10.648	.50271	2.0460	.53116	2.0981	9.5591	20.457
#2	52.714	.48869	10.605	.50122	2.0326	.53008	2.0765	9.7159	20.792

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0707	.96871	1.0145	1.0136	2.0685	2.0810	.51805	.48970	.45294
Stddev	.0022	.01394	.0020	.0044	.0003	.0581	.00539	.00278	.00466
%RSD	.10409	1.4389	.19863	.43375	.01664	2.7907	1.0404	.56704	1.0291

#1	2.0692	.95886	1.0160	1.0167	2.0687	2.1220	.52186	.49167	.44964
#2	2.0722	.97857	1.0131	1.0105	2.0682	2.0399	.51424	.48774	.45624

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2908.4	50070.	6110.6
Stddev	6.1	256.	109.7
%RSD	.21077	.51158	1.7949

#1	2904.0	49889.	6188.1
#2	2912.7	50251.	6033.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04534	2.0560	1.0255	1.0821	1.9992	.04919	2.0562	48.354	.10656
Stddev	.00056	.0033	.0002	.0034	.0104	.00102	.0010	.340	.00027
%RSD	1.2351	.16206	.02247	.31277	.52039	2.0698	.04803	.70235	.25385

#1	.04573	2.0584	1.0253	1.0797	2.0066	.04991	2.0569	48.594	.10675
#2	.04494	2.0537	1.0256	1.0845	1.9919	.04847	2.0555	48.114	.10637

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50973	F .19931	.25414	.97941	50.349	1.0039	49.938	.51665	1.0645
Stddev	.00102	.00026	.00031	.00980	.277	.0067	.159	.00192	.0010
%RSD	.19962	.12870	.12295	1.0010	.55026	.66901	.31892	.37197	.09697

#1	.51045	.19949	.25392	.98634	50.545	1.0087	50.051	.51801	1.0652
#2	.50901	.19913	.25436	.97248	50.154	.99918	49.825	.51529	1.0638

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	54.477	.50354	10.968	.51391	2.0968	W .54226	2.1175	9.8939	21.173
Stddev	.133	.00024	.018	.00257	.0019	.00243	.0205	.0059	.013
%RSD	.24462	.04794	.16484	.50070	.09127	.44837	.96866	.05910	.05910

#1	54.382	.50371	10.981	.51573	2.0955	.54398	2.1030	9.8980	21.182
#2	54.571	.50337	10.955	.51209	2.0982	.54054	2.1320	9.8897	21.164

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Warn	Chk Pass	Chk Pass	None
High Limit						.54000			
Low Limit						.44000			

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0884	.99732	1.0360	1.0356	2.0751	2.1210	.52999	.49866	.46444
Stddev	.0353	.00600	.0097	.0015	.0319	.0139	.00292	.00446	.00383
%RSD	1.6926	.60195	.93631	.14343	1.5376	.65691	.55076	.89539	.82515

#1	2.0634	1.0016	1.0428	1.0366	2.0525	2.1111	.53205	.50181	.46173
#2	2.1133	.99308	1.0291	1.0345	2.0977	2.1308	.52792	.49550	.46715

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2887.2	50020.	6069.7
Stddev	3.1	238.	38.7
%RSD	.10850	.47613	.63764

#1	2885.0	49852.	6042.3
#2	2889.4	50189.	6097.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0055	.00313	-0.00349	.00494	.00135	-0.0015	.00050	.03706	-0.00007
Stddev	.00010	.00022	.00227	.00026	.00002	.00004	.00254	.00149	.00014
%RSD	17.942	7.1181	65.069	5.1784	1.4869	25.440	510.29	4.0258	199.28

#1	-0.0048	.00297	-0.0189	.00476	.00134	-0.0012	-0.0130	.03811	-0.0017
#2	-0.0062	.00329	-0.00510	.00513	.00137	-0.00018	.00229	.03600	.00003

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00010	-0.00003	.02220	.00769	-0.01828	-0.00199	.01366	.00057	.00022
Stddev	.00010	.00028	.00011	.00194	.02851	.00270	.00020	.00006	.00011
%RSD	106.61	896.26	.47950	25.166	155.93	135.56	1.4794	11.294	49.402

#1	.00017	.00017	.02228	.00906	.00188	-0.00008	.01380	.00052	.00015
#2	.00002	-0.00023	.02213	.00632	-0.03844	-0.00390	.01352	.00062	.00030

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09175	.00012	.00278	-0.00021	.01022	-0.00133	-0.00489	.11691	.25018
Stddev	.00691	.00021	.00144	.00026	.00188	.00184	.00128	.01388	.02970
%RSD	7.5264	176.99	51.986	124.49	18.390	138.23	26.174	11.871	11.871

#1	.09663	.00027	.00380	-0.00003	.00889	-0.00003	-0.00398	.12672	.27118
#2	.08687	-0.00003	.00176	-0.00040	.01155	-0.00264	-0.00579	.10710	.22918

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00013	.00030	.00257	.00028	.00138	-0.01189	.00018	.00419	-0.00070
Stddev	.00034	.00007	.00208	.00034	.00244	.00348	.00025	.00012	.00054
%RSD	259.46	23.902	80.821	124.13	176.11	29.261	139.30	2.7642	76.842

#1	.00037	.00035	.00404	.00052	.00311	-0.01435	.00000	.00411	-0.00032
#2	-0.0011	.00025	.00110	.00003	-0.00034	-0.00943	.00036	.00427	-0.0108

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2998.8	51906.	6221.5
Stddev	.2	159.	23.1
%RSD	.00802	.30640	.37077

#1	2998.6	52019.	6205.1
#2	2999.0	51794.	6237.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0030	.00051	-0.00109	.00349	.00044	-0.00006	-0.00270	.00988	-0.00031
Stddev	.00074	.00009	.00415	.00030	.00018	.00007	.00110	.00215	.00016
%RSD	243.60	17.731	380.63	8.5248	40.945	119.93	40.697	21.717	52.296

#1	-0.00083	.00045	-0.00402	.00370	.00057	-0.00001	-0.00192	.00836	-0.00042
#2	.00022	.00058	.00184	.00328	.00031	-0.00011	-0.00348	.01140	-0.00019

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00036	-0.00002	.00375	-0.00072	-0.03415	-0.00194	.00136	.00009	.00022
Stddev	.00014	.00012	.00010	.00246	.01995	.00113	.00471	.00006	.00012
%RSD	39.456	576.80	2.5718	343.20	58.414	58.201	346.86	63.717	54.012

#1	.00026	.00006	.00382	-.00245	-.02004	-.00114	.00469	.00013	.00031
#2	.00046	-.00010	.00368	.00102	-.04825	-.00273	-.00197	.00005	.00014

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07147	-0.00002	.00151	.00007	.00856	-0.00057	.00214	.01236	.02644
Stddev	.01925	.00022	.00288	.00031	.00408	.00221	.00204	.00071	.00152
%RSD	26.934	891.94	190.59	462.49	47.694	385.42	95.501	5.7445	5.7445

#1	.05786	.00013	-.00053	-.00015	.01145	-.00214	.00070	.01286	.02752
#2	.08509	-.00018	.00355	.00029	.00567	.00099	.00359	.01185	.02537

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00088	.00000	.00038	.00027	-0.00189	-0.02689	-0.00025	.00086	.00048
Stddev	.00125	.00005	.00016	.00026	.00106	.02558	.00036	.00095	.00013
%RSD	141.21	1584.7	43.015	97.877	56.424	95.134	141.90	110.71	27.513

#1	.00000	.00004	.00049	.00008	-.00264	-.04498	.00000	.00154	.00038
#2	.00176	-.00003	.00026	.00045	-.00113	-.00880	-.00051	.00019	.00057

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2976.4	51576.	6106.8
Stddev	14.0	106.	26.0
%RSD	.46964	.20569	.42505

#1	2966.5	51501.	6088.4
#2	2986.3	51651.	6125.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04740	1.0154	.19649	.10529	.09770	.04718	.00081	18.502	.05065
Stddev	.00091	.0004	.00353	.00066	.00007	.00016	.00180	.045	.00014
%RSD	1.9183	.03911	1.7972	.62296	.07378	.34718	223.72	.24310	.28001

#1	.04675	1.0151	.19399	.10482	.09775	.04729	.00208	18.470	.05055
#2	.04804	1.0156	.19899	.10575	.09765	.04706	-.00047	18.533	.05075

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04917	.04900	.07038	.94417	18.999	.09518	19.113	.05011	.04807
Stddev	.00039	.00034	.00034	.00332	.077	.00062	.057	.00009	.00045
%RSD	.80208	.70192	.48026	.35127	.40490	.65021	.29566	.17911	.94602

#1	.04889	.04876	.07014	.94651	18.945	.09475	19.073	.05005	.04775
#2	.04945	.04924	.07062	.94182	19.053	.09562	19.153	.05017	.04839

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	21.274	.05024	W 2.0449	.10078	.00616	.09807	.19892	4.8039	10.280
Stddev	.709	.00029	.0124	.00142	.00277	.00144	.00006	.0678	.145
%RSD	3.3342	.58539	.60420	1.4136	45.040	1.4651	.03242	1.4110	1.4110

#1	21.776	.05004	2.0362	.09977	.00812	.09705	.19888	4.8518	10.383
#2	20.773	.05045	2.0536	.10179	.00420	.09908	.19897	4.7559	10.178

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10049	.04910	.20032	.04934	.19967	.51789	.04992	.20346	.04129
Stddev	.00119	.00079	.00094	.00006	.00002	.01635	.00010	.00235	.00100
%RSD	1.1809	1.6146	.47133	.12873	.01101	3.1573	.19508	1.1544	2.4204

#1	.09965	.04966	.19965	.04929	.19969	.52946	.04985	.20512	.04058
#2	.10133	.04854	.20099	.04938	.19966	.50633	.04999	.20180	.04199

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2949.7	51068.	6143.6
Stddev	2.1	105.	18.2
%RSD	.07251	.20599	.29653

#1	2951.2	50994.	6156.4
#2	2948.2	51143.	6130.7

Sample Name: CCVH-3294468 Acquired: 5/30/2015 18:01:53 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00825	49.517	-0.00294	.00303	.00044	-0.00002	1.0241	.03487	-0.00049	-0.00050	.00074	-0.00103	48.658
Stddev	.00047	.263	.00031	.00011	.00001	.00006	.0035	.00366	.00010	.00022	.00009	.00007	.011
%RSD	5.7470	.53134	10.552	3.4765	1.6422	275.77	.34579	10.496	21.094	43.928	11.899	6.9642	.02208

#1	-0.00858	49.331	-0.00316	.00310	.00045	-0.00007	1.0216	.03229	-0.00057	-0.00034	.00068	-0.00098	48.651
#2	-0.00791	49.703	-0.00272	.00296	.00044	.00002	1.0266	.03746	-0.00042	-0.00065	.00080	-0.00108	48.666

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00711	.00081	.04592	-0.00155	-0.00038	249.74	.00207	.00712	-0.00007	5.0235	-0.01194	.00494	-0.03657
Stddev	.01210	.00124	.00694	.00000	.00001	1.01	.00006	.00436	.00018	.0052	.00313	.00310	.00175
%RSD	170.14	152.49	15.122	.15598	1.6683	.40573	2.7884	61.296	253.96	.10262	26.244	62.784	4.7927

#1	.00144	.00168	.04101	-0.00155	-0.00038	249.02	.00203	.00403	-0.00020	5.0271	-0.01415	.00275	-0.03781
#2	-0.01567	-0.00006	.05084	-0.00155	-0.00039	250.45	.00212	.01021	.00006	5.0198	-0.00972	.00713	-0.03533

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.07826	-0.00149	.00039	5.0370	-0.01312	.00227	10.474	.00282	-0.00009	-.13546
Stddev	.00375	.00152	.00002	.0256	.00060	.00289	.078	.00042	.00007	.00375
%RSD	4.7927	101.52	4.2160	.50747	4.5742	126.99	.74005	14.877	79.946	2.7697

#1	-0.08091	-0.00257	.00038	5.0189	-0.01270	.00023	10.529	.00252	-0.00004	-.13281
#2	-0.07561	-0.00042	.00040	5.0550	-0.01355	.00432	10.419	.00312	-0.00014	-.13811

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2911.2	50060.	6032.3
Stddev	6.4	232.	22.0
%RSD	.21929	.46368	.36436

#1	2915.7	50224.	6047.8
#2	2906.7	49896.	6016.8

Sample Name: CCV-3296664 Acquired: 5/30/2015 18:04:29 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48584	.53428	.99763	.51551	.51611	.50883	-.00026	5.1347	.50546	.50131	.50308	.49172	2.5599
Stddev	.00516	.00078	.00114	.00102	.03692	.03726	.00273	.4113	.00098	.00141	.00014	.00529	.2003
%RSD	1.0623	.14559	.11396	.19828	7.1538	7.3229	1039.8	8.0110	.19445	.28073	.02812	1.0755	7.8259

#1	.48949	.53483	.99683	.51478	.49000	.48248	.00167	4.8438	.50477	.50031	.50318	.49546	2.4183
#2	.48219	.53373	.99844	.51623	.54221	.53518	-.00219	5.4256	.50616	.50230	.50298	.48798	2.7016

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.538	1.0345	19.468	.50328	.49387	5.4156	.49774	1.0291	.98349	.01374	1.0046	.99026	5.0393
Stddev	3.723	.0748	.259	.00642	.00076	.3900	.00134	.0005	.00164	.00298	.0025	.00249	.4188
%RSD	7.2233	7.2322	1.3278	1.2766	.15365	7.2009	.26954	.04682	.16648	21.707	.25072	.25155	8.3104

#1	48.906	.98159	19.651	.50782	.49333	5.1399	.49679	1.0294	.98233	.01163	1.0028	.99202	4.7431
#2	54.170	1.0874	19.285	.49874	.49441	5.6914	.49869	1.0287	.98465	.01585	1.0063	.98850	5.3354

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.784	.99556	.51645	-.00157	.50073	1.0043	.00040	.51345	.49789	.50375
Stddev	.896	.00426	.03753	.00147	.00607	.0038	.02287	.00793	.00593	.04241
%RSD	8.3104	.42752	7.2679	93.423	1.2123	.37698	5773.7	1.5445	1.1900	8.4188

#1	10.150	.99255	.48991	-.00053	.50502	1.0017	-.01577	.51905	.50208	.47376
#2	11.418	.99857	.54299	-.00260	.49644	1.0070	.01656	.50784	.49370	.53374

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3001.0	51674.	5862.0
Stddev	2.1	634.	334.1
%RSD	.07043	1.2266	5.7003

#1	3002.5	51226.	6098.3
#2	2999.5	52122.	5625.7

Sample Name: CCB Acquired: 5/30/2015 18:06:58 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.00016	-.00156	.00204	.00007	-.00003	.00175	.00196	-.00028	.00014	-.00005	-.00112	-.00172
Stddev	.00006	.00005	.00143	.00113	.00000	.00015	.00286	.00128	.00014	.00013	.00004	.00002	.00179
%RSD	527.68	31.307	91.470	55.150	2.2132	551.77	163.59	65.520	49.655	91.189	76.578	1.6800	104.54
#1	.00005	.00020	-.00257	.00284	.00007	.00008	.00377	.00105	-.00038	.00005	-.00002	-.00111	-.00298
#2	-.00003	.00013	-.00055	.00125	.00007	-.00013	-.00027	.00287	-.00018	.00023	-.00008	-.00113	-.00045

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.03874	-.00162	-.00276	-.00004	.00033	.06640	-.00026	.00241	-.00057	.00851	-.00268	-.00095	-.04582
Stddev	.03575	.00017	.00142	.00001	.00014	.00813	.00011	.00007	.00035	.00231	.00265	.00026	.01001
%RSD	92.287	10.277	51.461	36.085	41.520	12.246	43.213	3.0629	62.309	27.139	99.066	27.379	21.844
#1	-.06401	-.00174	-.00176	-.00005	.00023	.06065	-.00033	.00246	-.00082	.01014	-.00080	-.00113	-.03874
#2	-.01346	-.00151	-.00377	-.00003	.00043	.07215	-.00018	.00236	-.00032	.00688	-.00455	-.00077	-.05289

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.09805	.00033	.00001	.00187	.00021	-.00065	-.03899	-.00023	.00022	.00100
Stddev	.02142	.00048	.00003	.00035	.00044	.00080	.00481	.00058	.00024	.00134
%RSD	21.844	145.42	610.21	18.436	211.31	124.36	12.336	252.94	106.73	134.25
#1	-.08290	-.00001	.00003	.00163	-.00010	-.00121	-.03559	.00018	.00005	.00194
#2	-.11319	.00068	-.00002	.00212	.00052	-.00008	-.04239	-.00064	.00039	.00005

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3020.0	51996.	6138.1
Stddev	1.7	416.	55.7
%RSD	.05733	.80016	.90707
#1	3021.3	52290.	6177.5
#2	3018.8	51702.	6098.7

Sample Name: CCVL3301032 Acquired: 5/30/2015 18:09:20 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00936	.10901	.01557	.10584	.01005	.00091	.10371	.19947	.00506	.01070	.01019	.01415	.09441	3.0074
Stddev	.00008	.00094	.00119	.00131	.00020	.00002	.00150	.00502	.00020	.00005	.00017	.00011	.00343	.0314
%RSD	.89061	.85776	7.6126	1.2345	1.9553	1.8240	1.4460	2.5178	3.8904	.48281	1.6348	.77701	3.6309	1.0439

#1	.00942	.10835	.01641	.10492	.01019	.00090	.10265	.19592	.00492	.01073	.01030	.01423	.09199	2.9852
#2	.00931	.10967	.01473	.10677	.00991	.00093	.10477	.20303	.00520	.01066	.01007	.01407	.09683	3.0296

Check ?	Chk Pass														
Value Range															

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00849	.21486	.01047	.02009	1.1004	.04113	3.0275	.00832	.00547	.00795	.01557	.44309	.94822	.10358
Stddev	.00044	.00447	.00008	.00000	.0245	.00050	.0369	.00166	.00026	.00110	.00058	.02089	.04470	.00206
%RSD	5.1518	2.0803	.77666	.00267	2.2299	1.2244	1.2202	19.936	4.6823	13.771	3.7074	4.7143	4.7143	1.9841

#1	.00879	.21170	.01041	.02009	1.0831	.04077	3.0014	.00949	.00565	.00873	.01597	.42832	.91661	.10213
#2	.00818	.21802	.01053	.02009	1.1178	.04148	3.0536	.00715	.00529	.00718	.01516	.45786	.97983	.10504

Check ?	Chk Pass	None	Chk Pass												
Value Range															

Elem	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00994	.01635	.01045	.01509	.06111	.01012	.02247	.01342
Stddev	.00025	.00032	.00027	.00152	.01503	.00032	.00079	.00046
%RSD	2.4805	1.9842	2.6129	10.067	24.592	3.1554	3.5067	3.4547

#1	.00977	.01658	.01026	.01616	.07174	.01035	.02303	.01309
#2	.01011	.01612	.01064	.01402	.05048	.00990	.02191	.01375

Check ?	Chk Pass							
Value Range								

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3004.4	52126.	6131.0
Stddev	26.8	65.	52.1
%RSD	.89224	.12443	.85003

#1	3023.3	52171.	6167.8
#2	2985.4	52080.	6094.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0001	.00228	-0.00044	.00313	.00046	.00001	-0.00089	.01462	.00003
Stddev	.00048	.00029	.00123	.00059	.00019	.00001	.00195	.00430	.00006
%RSD	4901.3	12.737	281.55	18.946	40.904	97.261	219.28	29.394	190.61

#1	.00033	.00249	.00043	.00271	.00060	.00001	.00049	.01765	.00008
#2	-.00035	.00207	-.00131	.00355	.00033	.00000	-.00226	.01158	-.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0017	-0.0021	-0.0052	.00634	-0.03578	-0.00179	.00079	.00011	.00011
Stddev	.00015	.00034	.00003	.00113	.05640	.00039	.00080	.00000	.00018
%RSD	85.785	165.46	5.9772	17.767	157.62	22.027	101.76	1.7085	157.98

#1	-0.00007	-0.00045	-0.00050	.00555	-0.07566	-0.00151	.00136	.00011	-0.00001
#2	-0.00028	.00004	-0.00054	.00714	.00410	-0.00206	.00022	.00011	.00024

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05168	-0.0022	.00219	-0.00018	.01185	-0.00139	.00161	-0.02123	-0.04544
Stddev	.00060	.00013	.00020	.00046	.00618	.00211	.00041	.00484	.01035
%RSD	1.1549	61.185	9.2367	251.64	52.115	151.89	25.357	22.782	22.782

#1	.05126	-0.00012	.00205	-0.00050	.01622	-0.00288	.00132	-.02465	-.05276
#2	.05210	-0.00031	.00233	.00014	.00748	.00010	.00190	-.01781	-.03812

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00063	.00000	.00183	.00044	-0.00216	-0.01993	-0.00022	.00068	.00043
Stddev	.00020	.00001	.00302	.00018	.00055	.01096	.00015	.00037	.00043
%RSD	31.942	297.21	164.92	41.558	25.471	54.993	69.408	53.639	101.68

#1	.00077	.00001	.00397	.00057	-0.00255	-.01218	-0.00032	.00094	.00012
#2	.00049	.00000	-0.00030	.00031	-0.00177	-0.02768	-0.00011	.00042	.00073

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3039.1	52283.	6183.5
Stddev	2.3	18.	3.5
%RSD	.07669	.03348	.05678

#1	3037.5	52296.	6181.0
#2	3040.8	52271.	6186.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04407	1.9957	1.0032	1.0450	1.9497	.04754	1.9920	47.107	.10289
Stddev	.00106	.0016	.0020	.0041	.0002	.00026	.0082	.063	.00069
%RSD	2.4075	.08034	.20248	.39650	.01233	.53725	.41216	.13420	.67009

#1	.04482	1.9969	1.0047	1.0480	1.9496	.04772	1.9978	47.151	.10337
#2	.04332	1.9946	1.0018	1.0421	1.9499	.04736	1.9862	47.062	.10240

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49292	F .19413	.24705	.94927	49.010	.98062	48.673	.50060	1.0318
Stddev	.00090	.00093	.00074	.00256	.053	.00138	.149	.00063	.0020
%RSD	.18167	.48148	.30063	.27000	.10819	.14067	.30568	.12525	.19648

#1	.49356	.19479	.24653	.95108	49.048	.97964	48.568	.50016	1.0333
#2	.49229	.19347	.24758	.94746	48.973	.98160	48.778	.50105	1.0304

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	53.097	.48590	10.575	.49594	2.0392	.52362	2.0607	9.6808	20.717
Stddev	.309	.00229	.031	.00148	.0072	.00667	.0282	.0257	.055
%RSD	.58209	.47142	.29543	.29800	.35327	1.2744	1.3678	.26581	.26581

#1	52.879	.48752	10.597	.49490	2.0341	.52833	2.0806	9.6626	20.678
#2	53.316	.48428	10.553	.49699	2.0443	.51890	2.0408	9.6990	20.756

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0267	.97182	1.0029	1.0055	2.0276	2.1018	.51372	.48257	.45776
Stddev	.0278	.00080	.0052	.0012	.0276	.0181	.00162	.00171	.00394
%RSD	1.3692	.08261	.51389	.11774	1.3599	.86073	.31561	.35518	.86058

#1	2.0464	.97125	.99923	1.0046	2.0471	2.0890	.51257	.48136	.45497
#2	2.0071	.97239	1.0065	1.0063	2.0081	2.1145	.51487	.48378	.46054

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2919.8	50524.	6118.4
Stddev	2.9	160.	2.6
%RSD	.10027	.31661	.04187

#1	2921.8	50637.	6120.2
#2	2917.7	50411.	6116.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.16295	-.00150	.05033	.19322	-.00007	.00060	84.106	-.00042
Stddev	.00023	.00230	.00625	.00003	.00119	.00019	.00372	.297	.00020
%RSD	1089.0	1.4113	416.14	.06913	.61540	274.42	618.70	.35304	47.888

#1	-.00014	.16457	.00292	.05035	.19406	.00007	.00324	84.316	-.00057
#2	.00018	.16132	-.00592	.05030	.19238	-.00021	-.00203	83.896	-.00028

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	.00324	.00037	.10564	1.0258	.01797	9.4809	.00979	-.00116
Stddev	.00009	.00023	.00055	.00196	.0351	.00044	.0065	.00004	.00014
%RSD	113.15	7.0531	151.28	1.8531	3.4246	2.4708	.06864	.44808	11.730

#1	-.00002	.00308	-.00003	.10702	1.0010	.01829	9.4763	.00982	-.00126
#2	-.00014	.00340	.00076	.10426	1.0506	.01766	9.4855	.00975	-.00107

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	60.280	.00281	.02053	.00253	8.1098	.00321	.00406	11.856	25.373
Stddev	.508	.00010	.00277	.00032	.0624	.00129	.00131	.178	.382
%RSD	.84307	3.6139	13.477	12.536	.76887	40.195	32.293	1.5039	1.5039

#1	59.920	.00273	.02249	.00230	8.1539	.00230	.00313	11.730	25.103
#2	60.639	.00288	.01858	.00275	8.0658	.00412	.00498	11.982	25.642

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00184	.70533	.00248	.00274	-.00651	-.02715	.00808	.00189	-.00061
Stddev	.00052	.00260	.00119	.00006	.00000	.02810	.00036	.00021	.00020
%RSD	28.001	.36871	47.833	2.0351	.00163	103.49	4.4104	11.025	33.124

#1	.00221	.70717	.00164	.00278	-.00651	-.00728	.00833	.00204	-.00075
#2	.00148	.70349	.00332	.00270	-.00651	-.04702	.00783	.00174	-.00046

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2929.9	50935.	6139.1
Stddev	9.0	144.	62.9
%RSD	.30800	.28224	1.0241

#1	2923.5	50834.	6094.7
#2	2936.3	51037.	6183.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0047	.03569	.00016	.01191	.04021	-0.0018	-0.00008	17.242	-0.00022
Stddev	.00077	.00007	.00335	.00019	.00023	.00004	.00092	.008	.00003
%RSD	162.66	.18853	2106.5	1.5971	.57551	24.728	1172.6	.04926	15.495

#1	-0.0101	.03574	-0.00221	.01205	.04004	-0.0015	.00057	17.236	-0.0025
#2	.00007	.03565	.00253	.01178	.04037	-0.00021	-0.00073	17.248	-0.0020

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0012	.00090	-0.0053	.02230	.19607	.00154	2.0109	.00202	-0.0097
Stddev	.00019	.00020	.00011	.00222	.00876	.00075	.0241	.00006	.00015
%RSD	154.52	22.581	21.337	9.9407	4.4670	48.699	1.1996	2.9162	15.439

#1	-0.0025	.00076	-0.0045	.02074	.18988	.00207	2.0279	.00207	-0.0108
#2	.00001	.00105	-0.0061	.02387	.20226	.00101	1.9938	.00198	-0.0087

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.792	.00142	.00647	.00121	1.5768	-0.00227	.00036	2.4131	5.1640
Stddev	.314	.00015	.00092	.00103	.0023	.00287	.00181	.0560	.1198
%RSD	2.4539	10.219	14.155	85.416	.14782	126.43	498.24	2.3191	2.3191

#1	12.570	.00153	.00582	.00194	1.5752	-0.00429	-0.00092	2.3735	5.0793
#2	13.014	.00132	.00711	.00048	1.5785	-0.00024	.00164	2.4527	5.2487

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00179	.14514	.00453	.00071	-0.00184	-0.03442	.00141	-0.00032	-0.00067
Stddev	.00032	.00003	.00206	.00040	.00105	.00545	.00000	.00024	.00026
%RSD	17.835	.02314	45.535	56.302	57.313	15.838	.10250	74.364	39.106

#1	.00201	.14517	.00599	.00043	-0.00259	-0.03057	.00140	-0.00015	-0.00085
#2	.00156	.14512	.00307	.00100	-0.00109	-0.03828	.00141	-0.00048	-0.00048

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3003.6	51805.	6157.5
Stddev	3.0	243.	32.7
%RSD	.09965	.46994	.53157

#1	3001.5	51977.	6134.4
#2	3005.7	51633.	6180.7

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04578	2.1952	W 2.5136	1.0315	1.1138	2.1868	.04887	F 2.0261	131.57
Stddev	.00004	.0007	.0117	.0037	.0080	.0111	.00020	.0122	.88
%RSD	.08198	.03118	.46404	.36005	.71857	.50912	.41697	.60320	.66908

#1	.04575	2.1947	2.5053	1.0289	1.1082	2.1789	.04872	2.0175	130.95
#2	.04580	2.1957	2.5218	1.0342	1.1195	2.1946	.04901	2.0347	132.19

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00					.10000	
Low Limit			3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10456	.49405	W .19738	.25305	1.1077	51.647	1.0284	57.881	.51185
Stddev	.00084	.00326	.00031	.00005	.0154	.248	.0059	.072	.00061
%RSD	.80569	.65959	.15627	.01937	1.3928	.48006	.57792	.12421	.11841

#1	.10396	.49175	.19717	.25309	1.0968	51.472	1.0242	57.932	.51142
#2	.10516	.49635	.19760	.25302	1.1186	51.822	1.0326	57.831	.51228

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.10000						
Low Limit			-.01000						

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0464	113.17	.49167	W 10.934	.49755	10.173	.52891	2.0722	21.914
Stddev	.0054	.58	.00180	.069	.00408	.062	.00519	.0222	.139
%RSD	.51656	.51459	.36608	.63446	.82039	.61073	.98198	1.0714	.63291

#1	1.0426	112.76	.49039	10.885	.49466	10.129	.52524	2.0565	21.815
#2	1.0502	113.58	.49294	10.983	.50044	10.217	.53259	2.0879	22.012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				2.0000					
Low Limit				-1.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	46.895	W 2.0168	1.7074	1.0212	1.0245	1.9617	2.1088	.52615	.48183
Stddev	.297	.0148	.0086	.0029	.0034	.0103	.0105	.00086	.00041
%RSD	.63291	.73561	.50108	.28287	.33680	.52319	.49773	.16371	.08598

#1	46.685	2.0064	1.7013	1.0232	1.0220	1.9545	2.1014	.52554	.48153
#2	47.105	2.0273	1.7134	1.0191	1.0269	1.9690	2.1162	.52676	.48212

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		2.0000							
Low Limit		-.05000							

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.46523
Stddev	.00550
%RSD	1.1827

#1	.46133
#2	.46912

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69589-C-2-B MS Acquired: 5/30/2015 18:22:07 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: broanderl Prep Date: Custom ID2: Custom ID3:
Comment: 279404 6010C Q5

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2889.0	50295.	6168.3
Stddev	.4	143.	25.1
%RSD	.01276	.28451	.40654
#1	2889.3	50397.	6186.1
#2	2888.7	50194.	6150.6

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04485	2.1253	W 2.3957	.99648	1.0850	2.0893	.04684	F 1.9738	126.69
Stddev	.00035	.0029	.0089	.00345	.0017	.0048	.00015	.0050	.13
%RSD	.78321	.13664	.37152	.34592	.15707	.22954	.32053	.25341	.10447

#1	.04460	2.1274	2.3894	.99405	1.0862	2.0859	.04674	1.9774	126.60
#2	.04510	2.1233	2.4020	.99892	1.0838	2.0927	.04695	1.9703	126.78

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00					.10000	
Low Limit			3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10155	.47786	W .19120	.24528	1.0263	49.381	.97978	56.273	.49730
Stddev	.00023	.00013	.00036	.00013	.0049	.039	.00097	.141	.00057
%RSD	.22497	.02769	.18849	.05380	.47304	.07997	.09855	.25126	.11472

#1	.10139	.47795	.19145	.24518	1.0297	49.353	.97910	56.373	.49770
#2	.10171	.47776	.19094	.24537	1.0229	49.408	.98047	56.173	.49690

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.10000						
Low Limit			-.01000						

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0125	109.12	.47326	W 10.622	.48128	9.9861	.52120	2.0430	21.180
Stddev	.0005	.22	.00013	.008	.00260	.0049	.00629	.0243	.050
%RSD	.04634	.20310	.02820	.07785	.53949	.04951	1.2071	1.1887	.23677

#1	1.0129	108.96	.47335	10.628	.47945	9.9896	.52565	2.0601	21.144
#2	1.0122	109.28	.47316	10.616	.48312	9.9826	.51675	2.0258	21.215

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				2.0000					
Low Limit				-1.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	45.325	1.9710	1.6383	.98776	.99532	1.9166	2.0179	.51357	.46790
Stddev	.107	.0302	.0014	.00083	.00037	.0255	.0140	.00101	.00116
%RSD	.23677	1.5311	.08479	.08449	.03763	1.3312	.69326	.19578	.24803

#1	45.249	1.9923	1.6374	.98835	.99506	1.9346	2.0278	.51428	.46872
#2	45.401	1.9496	1.6393	.98717	.99559	1.8985	2.0080	.51286	.46708

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.44474
Stddev	.00072
%RSD	.16283

#1	.44423
#2	.44526

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69589-C-2-C MSD Acquired: 5/30/2015 18:24:30 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: broanderl Prep Date: Custom ID2: Custom ID3:
Comment: 279404 6010C Q5

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2883.3	50082.	6161.6
Stddev	5.4	158.	18.3
%RSD	.18817	.31539	.29658
#1	2887.2	49971.	6174.5
#2	2879.5	50194.	6148.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04642	1.1298	.20137	.15145	.28474	.04730	.00362	100.57	.05081
Stddev	.00003	.0002	.00075	.00148	.00094	.00008	.00107	.45	.00001
%RSD	.06858	.01683	.37184	.97655	.33059	.16064	29.498	.44791	.02683

#1	.04644	1.1300	.20190	.15040	.28408	.04725	.00287	100.25	.05080
#2	.04639	1.1297	.20085	.15249	.28541	.04735	.00438	100.89	.05082

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04732	.05082	.04817	1.0232	20.131	.11524	27.743	.05771	.04735
Stddev	.00019	.00006	.00064	.0022	.081	.00202	.154	.00035	.00043
%RSD	.39520	.11245	1.3324	.22036	.40233	1.7519	.55373	.59796	.91286

#1	.04745	.05086	.04862	1.0216	20.074	.11381	27.852	.05796	.04705
#2	.04719	.05078	.04771	1.0248	20.189	.11666	27.635	.05747	.04766

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	80.093	.05004	W 2.0947	.09747	7.9873	.09977	.20203	16.541	35.397
Stddev	.326	.00024	.0072	.00037	.0151	.00057	.00356	.206	.441
%RSD	.40707	.48278	.34458	.37616	.18881	.56688	1.7628	1.2461	1.2461

#1	79.863	.05022	2.0896	.09721	7.9766	.09937	.19952	16.395	35.085
#2	80.324	.04987	2.0998	.09773	7.9979	.10017	.20455	16.686	35.709

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09767	.74270	.19872	.05255	.18863	.50032	.05813	.19539	.04176
Stddev	.00015	.00297	.00033	.00005	.00068	.01861	.00021	.00450	.00064
%RSD	.15254	.39980	.16630	.09761	.36031	3.7206	.36420	2.3021	1.5255

#1	.09756	.74060	.19895	.05251	.18911	.51348	.05828	.19221	.04131
#2	.09778	.74480	.19848	.05258	.18815	.48715	.05798	.19857	.04221

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2945.0	50776.	6246.2
Stddev	1.8	271.	45.4
%RSD	.06072	.53357	.72741

#1	2946.2	50584.	6278.3
#2	2943.7	50968.	6214.1

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00717	48.656	-0.00166	.00360	.00083	.00004	1.0180	.03756	-.00033	-.00012	.00070
Stddev	.00013	.060	.00090	.00049	.00001	.00010	.0055	.00551	.00039	.00055	.00042
%RSD	1.7631	.12388	54.394	13.610	1.3003	227.82	.53769	14.658	116.10	452.31	59.713

#1	-0.00726	48.613	-0.00230	.00394	.00083	-0.00003	1.0219	.04146	-0.00061	-0.00051	.00041
#2	-0.00708	48.698	-0.00102	.00325	.00082	.00011	1.0141	.03367	-0.00006	.00027	.00100

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00112	48.273	.05716	-.00134	.04847	-.00159	-.00006	246.52	.00184	.00472	.00138
Stddev	.00002	.480	.01967	.00011	.00450	.00012	.00054	.28	.00037	.00015	.00116
%RSD	1.6442	.99497	34.420	8.1435	9.2840	7.2994	835.62	.11190	20.172	3.1861	84.110

#1	-0.00110	47.933	.04325	-.00126	.05165	-.00151	.00032	246.71	.00210	.00482	.00220
#2	-0.00113	48.612	.07107	-.00141	.04529	-.00167	-.00045	246.32	.00158	.00461	.00056

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.0143	-.01323	.00663	-.04835	-.10347	-.00235	.00035	5.0027	-.01267	.00279	W 10.622
Stddev	.0412	.00016	.00029	.01565	.03349	.00013	.00005	.0138	.00006	.00051	.032
%RSD	.82120	1.1922	4.3081	32.363	32.363	5.7054	15.627	.27644	.47010	18.168	.30196

#1	5.0434	-.01335	.00684	-.03728	-.07979	-.00225	.00039	5.0125	-.01272	.00244	10.645
#2	4.9851	-.01312	.00643	-.05941	-.12714	-.00244	.00031	4.9930	-.01263	.00315	10.599

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value											10.000
Range											5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00235	-.00036	-.13261
Stddev	.00023	.00054	.00229
%RSD	9.7481	151.37	1.7299

#1	.00219	.00003	-.13423
#2	.00252	-.00074	-.13099

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2972.0	50951.	6238.4
Stddev	1.1	219.	35.0
%RSD	.03698	.43053	.56065

#1	2972.8	50796.	6263.1
#2	2971.2	51106.	6213.6

Sample Name: CCV-3296664 Acquired: 5/30/2015 18:32:05 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49867	.54328	1.0071	.52533	.48624	.47869	-.00112	4.8393	.51664	.51198	.50654	.50316	2.4007
Stddev	.00025	.00120	.0076	.00021	.00399	.00343	.00050	.0415	.00139	.00472	.00313	.00197	.0167
%RSD	.04934	.22097	.75349	.03969	.82147	.71752	44.839	.85755	.26823	.92144	.61885	.39200	.69453

#1	.49850	.54243	1.0124	.52548	.48342	.47626	-.00077	4.8100	.51762	.51532	.50876	.50176	2.3889
#2	.49885	.54413	1.0017	.52519	.48907	.48112	-.00148	4.8687	.51566	.50865	.50433	.50455	2.4125

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.489	.97559	19.860	.51068	.50194	5.1126	.50572	1.0492	1.0081	.00667	1.0336	1.0104	4.7798
Stddev	.242	.00533	.105	.00220	.00478	.0493	.00525	.0138	.0126	.00050	.0174	.0214	.0619
%RSD	.50002	.54632	.52737	.43016	.95179	.96453	1.0386	1.3195	1.2496	7.5310	1.6871	2.1202	1.2950

#1	48.318	.97183	19.786	.50912	.50532	5.0777	.50944	1.0590	1.0170	.00702	1.0459	1.0256	4.7360
#2	48.660	.97936	19.934	.51223	.49856	5.1475	.50201	1.0394	.99922	.00631	1.0212	.99528	4.8236

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.229	1.0193	.48546	.00208	.50881	1.0322	-.03514	.52231	.50243	.47276
Stddev	.132	.0156	.00418	.00024	.00324	.0134	.01004	.00283	.00325	.00659
%RSD	1.2950	1.5300	.86073	11.721	.63684	1.2985	28.559	.54198	.64592	1.3943

#1	10.135	1.0303	.48250	.00191	.50652	1.0417	-.04224	.52031	.50013	.46810
#2	10.322	1.0083	.48841	.00225	.51110	1.0227	-.02805	.52431	.50472	.47743

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2972.5	51132.	6152.1
Stddev	6.5	124.	21.1
%RSD	.21781	.24242	.34373

#1	2967.9	51220.	6167.0
#2	2977.1	51045.	6137.1

Sample Name: CCB Acquired: 5/30/2015 18:34:34 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00040	.00000	.00195	.00214	.00015	-0.00018	-0.00061	-0.00034	-0.00033	-0.00007	-0.00017	-0.00024	-0.00024
Stddev	.00066	.0002	.00401	.00092	.00008	.00006	.00229	.00331	.00004	.00021	.00009	.00016	.00003
%RSD	163.03	38826.	206.03	43.028	53.793	31.435	373.11	971.12	11.210	274.82	50.265	67.670	12.153
#1	.00006	.00014	.00478	.00279	.00009	-.00022	.00100	.00200	-.00031	-.00022	-.00023	-.00012	-.00022
#2	-.00087	-.00014	-.00089	.00149	.00020	-.00014	-.00223	-.00268	-.00036	.00007	-.00011	-.00035	-.00026

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.02417	-0.00357	.00023	-0.00010	.00024	.07148	-0.00025	.00138	-0.00137	-0.00231	-0.00045	-0.00365	-0.01174
Stddev	.01184	.00233	.00230	.00002	.00006	.01747	.00025	.00030	.00018	.00149	.00185	.00202	.00884
%RSD	48.994	65.262	990.45	20.049	26.755	24.437	101.78	21.757	13.444	64.597	414.24	55.424	75.259
#1	-.01580	-.00192	-.00140	-.00012	.00019	.05913	-.00007	.00159	-.00150	-.00125	.00086	-.00508	-.00549
#2	-.03254	-.00522	.00186	-.00009	.00028	.08383	-.00043	.00117	-.00124	-.00336	-.00175	-.00222	-.01799

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.02513	.00019	.00003	.00209	-0.00010	-0.00075	-0.01244	-0.00045	-0.00029	-0.00112
Stddev	.01891	.00001	.00004	.00050	.00006	.00028	.01302	.00095	.00026	.00057
%RSD	75.259	5.2530	118.02	23.684	55.055	36.984	104.66	208.93	90.944	50.483
#1	-.01176	.00020	.00001	.00174	-.00006	-.00094	-.00323	.00022	-.00010	-.00152
#2	-.03850	.00018	.00006	.00244	-.00014	-.00055	-.02165	-.00112	-.00048	-.00072

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2993.1	51571.	6084.1
Stddev	3.7	412.	11.2
%RSD	.12343	.79954	.18344
#1	2990.5	51863.	6092.0
#2	2995.7	51280.	6076.2

Sample Name: CCVL3301032 Acquired: 5/30/2015 18:36:57 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00973	.11058	.01270	.10904	.01029	.00089	.10527	.20814	.00528	.01078	.01020	.01466	.09851	3.0398
Stddev	.00054	.00083	.00128	.00084	.00003	.00002	.00038	.00194	.00015	.00009	.00004	.00052	.00158	.0428
%RSD	5.5835	.74848	10.117	.77345	.32576	2.8055	.36158	.93362	2.8324	.79558	.34546	3.5612	1.6082	1.4081
#1	.01011	.11117	.01361	.10844	.01031	.00087	.10554	.20951	.00517	.01084	.01018	.01503	.09739	3.0095
#2	.00934	.11000	.01179	.10963	.01027	.00090	.10500	.20676	.00538	.01072	.01023	.01429	.09963	3.0701

Check ?	Chk Pass													
Value														
Range														

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00772	.21229	.01069	.01975	1.1077	.04174	3.0654	.00857	.00303	.00983	.01687	.47169	1.0094	.10373
Stddev	.00088	.00385	.00002	.00010	.0150	.00035	.0183	.00169	.00980	.00021	.00217	.01526	.0326	.00125
%RSD	11.373	1.8115	.17762	.50813	1.3579	.83603	.59726	19.686	322.84	2.1700	12.833	3.2342	3.2342	1.2048
#1	.00710	.21501	.01071	.01982	1.0971	.04149	3.0525	.00976	.00996	.00968	.01534	.46090	.98633	.10285
#2	.00834	.20957	.01068	.01968	1.1183	.04199	3.0784	.00738	-.00389	.00998	.01841	.48248	1.0325	.10462

Check ?	Chk Pass	None	Chk Pass												
Value															
Range															

Elem	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01014	.01753	.01025	.01665	.05133	.01012	.02214	.01441
Stddev	.00012	.00311	.00041	.00108	.03312	.00032	.00109	.00119
%RSD	1.1820	17.738	3.9817	6.5026	64.510	3.1254	4.9346	8.2297
#1	.01005	.01533	.01053	.01742	.07475	.00990	.02291	.01525
#2	.01022	.01972	.00996	.01589	.02792	.01034	.02136	.01357

Check ?	Chk Pass							
Value								
Range								

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3030.2	51633.	6037.4
Stddev	6.0	199.	63.6
%RSD	.19639	.38522	1.0531
#1	3026.0	51492.	6082.3
#2	3034.5	51773.	5992.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.02589	-.00232	.01917	.00040	-.00009	-.00068	.04178	-.00007
Stddev	.00028	.00068	.00253	.00003	.00005	.00003	.00110	.00243	.00003
%RSD	440.73	2.6272	109.31	.17129	11.395	30.359	162.60	5.8187	40.220

#1	.00026	.02541	-.00411	.01919	.00037	-.00007	-.00145	.04006	-.00010
#2	-.00013	.02637	-.00053	.01915	.00044	-.00011	.00010	.04350	-.00005

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00020	.00017	.00041	.01437	-.06716	-.00234	.00596	.00058	.00016
Stddev	.00055	.00017	.00020	.00194	.01686	.00226	.00044	.00013	.00018
%RSD	277.54	100.34	49.253	13.484	25.100	96.438	7.3817	22.917	108.79

#1	-.00019	.00005	.00026	.01574	-.05524	-.00393	.00565	.00067	.00029
#2	.00059	.00029	.00055	.01300	-.07908	-.00074	.00627	.00049	.00004

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 1.9595	-.00080	.00582	-.00147	.03570	-.00086	-.00343	.03606	.07718
Stddev	.0139	.00032	.00217	.00017	.00300	.00116	.00017	.00203	.00433
%RSD	.70719	40.414	37.277	11.619	8.3983	134.27	4.9707	5.6150	5.6150

#1	1.9497	-.00057	.00428	-.00159	.03782	-.00168	-.00331	.03463	.07411
#2	1.9693	-.00103	.00735	-.00135	.03358	-.00004	-.00355	.03750	.08024

Check ?	Chk Fail	Chk Pass	None						
High Limit	1.0000								
Low Limit	-1.0000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	.00025	.00276	-.00001	-.00150	-.01161	-.00060	.00354	.00062
Stddev	.00089	.00005	.00069	.00004	.00324	.01945	.00023	.00063	.00185
%RSD	964.99	20.255	24.894	443.24	216.22	167.52	39.336	17.953	298.33

#1	.00073	.00029	.00325	.00002	-.00379	-.02536	-.00043	.00309	-.00069
#2	-.00054	.00021	.00227	-.00003	.00079	.00214	-.00076	.00399	.00192

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3064.4	53363.	6307.5
Stddev	8.7	91.	7.6
%RSD	.28530	.16989	.12058

#1	3058.2	53299.	6312.9
#2	3070.6	53427.	6302.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19793	W .43117	.76251	.21792	2.2608	.00918	.39212	9.1077	.22029
Stddev	.00030	.00073	.00081	.00070	.0103	.00009	.00206	.0464	.00099
%RSD	.14914	.17011	.10639	.32348	.45645	.97292	.52537	.50894	.44722

#1	.19772	.43168	.76194	.21742	2.2535	.00911	.39066	9.0749	.21959
#2	.19814	.43065	.76308	.21841	2.2681	.00924	.39358	9.1405	.22098

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit		.43200							
Low Limit		1.7200							

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09646	F 1.0035	.42608	.21124	9.6568	.19435	9.3385	.09705	.19756
Stddev	.00048	.0002	.00089	.00073	.1589	.00053	.0063	.00007	.00034
%RSD	.50125	.02303	.20992	.34693	1.6456	.27172	.06703	.06896	.17033

#1	.09611	1.0034	.42545	.21072	9.7692	.19397	9.3341	.09710	.19780
#2	.09680	1.0037	.42671	.21176	9.5445	.19472	9.3429	.09701	.19732

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.25200							
Low Limit		.16800							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 12.546	.09576	1.9904	1.0816	.39812	.10093	.58849	1.9100	F 4.0875
Stddev	.153	.00006	.0170	.0001	.00524	.00148	.00750	.0215	.0460
%RSD	1.2190	.05835	.85158	.01234	1.3159	1.4643	1.2746	1.1248	1.1248

#1	12.438	.09572	1.9785	1.0817	.40182	.09989	.59379	1.9252	4.1200
#2	12.654	.09580	2.0024	1.0815	.39442	.10198	.58318	1.8948	4.0550

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit	11.200								4.9220
Low Limit	9.1000								4.0200

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.38837	.18677	.19297	.19317	.39666	.36959	.09745	.46496	.08846
Stddev	.00215	.00092	.00056	.00009	.00075	.02720	.00009	.00544	.00202
%RSD	.55417	.49409	.29228	.04594	.18846	7.3593	.09142	1.1710	2.2833

#1	.38685	.18612	.19337	.19324	.39719	.35035	.09739	.46881	.08989
#2	.38990	.18742	.19258	.19311	.39614	.38882	.09752	.46111	.08703

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3029.7	53111.	6341.1
Stddev	2.0	142.	9.6
%RSD	.06756	.26739	.15081

#1	3028.3	53010.	6347.9
#2	3031.2	53211.	6334.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00056	1.6145	-0.00052	.28690	.00600	.00003	-0.00048	6.1093	.04314
Stddev	.00100	.0009	.00488	.00047	.00012	.00010	.00035	.0551	.00013
%RSD	179.88	.05338	943.61	.16512	2.0348	328.95	72.113	.90275	.30210

#1	.00127	1.6151	.00294	.28657	.00591	-0.0004	-0.00024	6.0703	.04305
#2	-.00015	1.6139	-.00397	.28724	.00608	.00010	-0.00073	6.1483	.04323

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0023	.01772	.03711	1.1441	.93594	.00298	1.7957	.01491	.00082
Stddev	.00000	.00033	.00029	.0088	.01800	.00108	.0024	.00027	.00006
%RSD	2.0515	1.8851	.77018	.77290	1.9232	36.341	.13250	1.8131	7.5538

#1	-0.00024	.01749	.03732	1.1379	.92321	.00374	1.7974	.01511	.00086
#2	-0.00023	.01796	.03691	1.1504	.94867	.00221	1.7940	.01472	.00077

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 513.65	.00460	.08407	.37729	F 2444.0	.00073	.00374	.43329	.92725
Stddev	2.30	.00007	.00034	.00049	1.7	.00109	.00228	.01069	.02287
%RSD	.44720	1.5345	.40121	.13053	.07041	149.95	60.994	2.4661	2.4661

#1	512.03	.00455	.08383	.37694	2445.2	-0.0004	.00213	.42574	.91108
#2	515.28	.00465	.08431	.37763	2442.7	.00150	.00536	.44085	.94342

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00				200.00				
Low Limit	11.000				-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06801	.00951	.00109	.00640	-0.0173	-0.00631	-0.00016	.79306	.02474
Stddev	.00124	.00008	.00061	.00031	.00093	.00462	.00017	.02093	.00314
%RSD	1.8191	.86937	55.779	4.8416	53.714	73.197	101.97	2.6395	12.705

#1	.06713	.00945	.00153	.00618	-0.0107	-0.00958	-0.00005	.80786	.02697
#2	.06888	.00957	.00066	.00662	-0.0239	-0.00304	-0.00028	.77826	.02252

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2931.4	49962.	6242.7
Stddev	4.1	412.	21.5
%RSD	.14087	.82453	.34471

#1	2934.4	49671.	6257.9
#2	2928.5	50253.	6227.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0029	.35776	.00071	.06002	.00118	-0.00001	-0.00120	1.2503	.00848
Stddev	.00012	.00206	.00189	.00019	.00012	.00001	.00047	.0241	.00012
%RSD	40.102	.57591	265.98	.31691	10.200	146.57	38.937	1.9283	1.4558

#1	-0.00021	.35921	-0.00063	.06015	.00110	.00000	-0.00087	1.2333	.00856
#2	-0.00038	.35630	.00205	.05988	.00127	-0.00002	-0.00153	1.2674	.00839

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.00355	.00719	.23231	.19002	.00105	.39184	.00295	-0.00005
Stddev	.00015	.00015	.00021	.00509	.00140	.00078	.00342	.00001	.00044
%RSD	185.34	4.1455	2.9660	2.1914	.73868	74.300	.87240	.39551	907.70

#1	.00018	.00345	.00734	.22871	.18902	.00050	.39426	.00294	.00026
#2	-0.00002	.00366	.00703	.23591	.19101	.00160	.38943	.00295	-0.00036

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	107.96	.00128	.01560	.07874	F 644.21	-0.00262	.00074	.08434	.18048
Stddev	1.71	.00016	.00222	.00008	1.31	.00167	.00148	.00668	.01430
%RSD	1.5819	12.490	14.215	.09753	.20380	63.995	199.24	7.9258	7.9258

#1	106.76	.00140	.01403	.07880	645.14	-0.00380	.00179	.08906	.19060
#2	109.17	.00117	.01717	.07869	643.29	-0.00143	-0.00030	.07961	.17037

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01530	.00187	.00151	.00133	-0.00165	-0.01209	-0.00074	.16005	.00486
Stddev	.00167	.00000	.00141	.00038	.00114	.01668	.00016	.00142	.00059
%RSD	10.914	.01366	93.035	28.971	68.977	137.99	22.014	.88557	12.237

#1	.01648	.00187	.00052	.00106	-0.00245	-0.00029	-0.00062	.15905	.00528
#2	.01412	.00187	.00251	.00160	-0.00085	-0.02388	-0.00085	.16106	.00444

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3012.7	52216.	6285.3
Stddev	8.1	37.	8.2
%RSD	.26912	.07073	.13035

#1	3007.0	52243.	6291.1
#2	3018.4	52190.	6279.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .20266	1.9551	.79804	.47908	1.0107	.00940	F .37843	15.059	.27002
Stddev	.00130	.0023	.00573	.00049	.0053	.00014	.00298	.083	.00268
%RSD	.64115	.11738	.71851	.10260	.52674	1.4895	.78721	.54974	.99198

#1	.20358	1.9567	.80210	.47874	1.0145	.00949	.37633	15.117	.26813
#2	.20174	1.9534	.79399	.47943	1.0069	.00930	.38054	15.000	.27192

Check ?	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass				
High Limit	.10000						.10000		
Low Limit	-.01000						-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09435	W .97350	.46856	1.3099	10.840	.19992	10.607	.11130	.19804
Stddev	.00064	.00101	.00093	.0086	.018	.00024	.048	.00021	.00190
%RSD	.67867	.10346	.19888	.65387	.16582	.11998	.45138	.19257	.95710

#1	.09389	.97421	.46922	1.3160	10.828	.20009	10.641	.11145	.19670
#2	.09480	.97279	.46790	1.3039	10.853	.19975	10.574	.11115	.19938

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 520.58	.09790	W 2.1212	1.3082	F 2441.5	.10276	.69342	2.2645	4.8461
Stddev	3.06	.00035	.0123	.0104	1.1	.00355	.01965	.0045	.0097
%RSD	.58793	.35953	.57845	.79239	.04577	3.4578	2.8333	.19930	.19930

#1	522.74	.09766	2.1125	1.3009	2442.3	.10527	.67953	2.2677	4.8529
#2	518.41	.09815	2.1299	1.3156	2440.7	.10025	.70731	2.2613	4.8393

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00		2.0000		200.00				
Low Limit	11.000		-1.0000		-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.43488	.19490	.19613	.20515	.35308	.39380	.10097	1.2746	.11203
Stddev	.00668	.00087	.00253	.00011	.00133	.01634	.00034	.0019	.00064
%RSD	1.5370	.44748	1.2903	.05298	.37733	4.1504	.33641	.15067	.57073

#1	.43015	.19552	.19792	.20508	.35214	.38224	.10073	1.2760	.11248
#2	.43961	.19428	.19434	.20523	.35403	.40536	.10121	1.2733	.11157

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2918.6	49572.	6284.1
Stddev	.1	31.	51.4
%RSD	.00341	.06307	.81762

#1	2918.6	49594.	6247.8
#2	2918.5	49550.	6320.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .18973	1.8585	.75517	.45262	1.1444	.00885	F .35766	14.225	.25460
Stddev	.00029	.0117	.00545	.00094	.0014	.00013	.00425	.030	.00419
%RSD	.15411	.62670	.72144	.20833	.11796	1.4557	1.1881	.20960	1.6459

#1	.18994	1.8667	.75902	.45328	1.1453	.00894	.36067	14.246	.25756
#2	.18953	1.8502	.75131	.45195	1.1434	.00876	.35466	14.204	.25163

Check ?	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass				
High Limit	.10000						.10000		
Low Limit	-.01000						-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08922	W .92346	.43810	1.2696	10.293	.18958	9.9889	.10505	.18761
Stddev	.00082	.00121	.00124	.0062	.100	.00016	.0177	.00014	.00204
%RSD	.91559	.13088	.28387	.48894	.97177	.08294	.17737	.13599	1.0896

#1	.08980	.92432	.43722	1.2740	10.222	.18969	10.001	.10495	.18906
#2	.08864	.92261	.43898	1.2652	10.364	.18947	9.9764	.10515	.18616

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	492.83	.09342	1.9983	1.2452	F 2337.7	.09679	.64997	2.1842	4.6742
Stddev	.38	.00143	.0231	.0170	14.8	.00271	.01669	.0237	.0507
%RSD	.07729	1.5291	1.1539	1.3687	.63193	2.8049	2.5678	1.0843	1.0843

#1	493.09	.09443	2.0146	1.2573	2348.2	.09870	.66177	2.1675	4.6384
#2	492.56	.09241	1.9820	1.2332	2327.3	.09487	.63817	2.2010	4.7100

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.40922	.18483	.18566	.19357	.33554	.35790	.09454	1.2063	.10621
Stddev	.00700	.00029	.00088	.00041	.00543	.01455	.00005	.0071	.00265
%RSD	1.7116	.15474	.47502	.21257	1.6177	4.0643	.05449	.59110	2.4977

#1	.41418	.18504	.18628	.19386	.33938	.34762	.09457	1.2113	.10808
#2	.40427	.18463	.18503	.19328	.33170	.36819	.09450	1.2013	.10433

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2926.7	49921.	6280.6
Stddev	11.8	218.	49.1
%RSD	.40483	.43652	.78183

#1	2918.3	49767.	6245.9
#2	2935.1	50075.	6315.3

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04782	2.3763	W 2.6681	.20248	.37348	.09849	.04597	.00219	23.408
Stddev	.00024	.0114	.0273	.00010	.00486	.00087	.00026	.00518	.098
%RSD	.49547	.47937	1.0240	.04721	1.3007	.88219	.57371	235.98	.41739

#1	.04799	2.3844	2.6874	.20255	.37691	.09910	.04616	-.00147	23.477
#2	.04766	2.3683	2.6487	.20241	.37004	.09787	.04578	.00586	23.339

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			500.00						
Low Limit			3.2000						

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09168	.04604	.06378	.08194	1.9720	19.921	.09917	18.880	.06162
Stddev	.00118	.00017	.00020	.00069	.0008	.013	.00123	.052	.00014
%RSD	1.2867	.37758	.31805	.84481	.04054	.06311	1.2365	.27683	.22991

#1	.09251	.04616	.06392	.08243	1.9725	19.930	.09831	18.917	.06172
#2	.09084	.04591	.06363	.08145	1.9714	19.912	.10004	18.844	.06152

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04685	W 514.49	.05129	W 2.0823	.45012	F 2358.8	.09490	.22227	5.0529
Stddev	.00015	2.41	.00004	.0048	.00618	9.9	.00000	.00240	.0237
%RSD	.32854	.46827	.07075	.22944	1.3726	.41875	.00208	1.0778	.46887

#1	.04696	516.20	.05126	2.0857	.45449	2365.8	.09489	.22058	5.0361
#2	.04674	512.79	.05131	2.0789	.44575	2351.8	.09490	.22396	5.0697

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		500.00		2.0000		200.00			
Low Limit		11.000		-1.0000		-20000			

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.813	.15662	.05629	.19753	.05517	.17148	.49097	.04972	.95631
Stddev	.051	.00117	.00020	.00070	.00021	.00233	.02638	.00071	.00036
%RSD	.46887	.74515	.34906	.35252	.37334	1.3578	5.3722	1.4310	.03812

#1	10.777	.15744	.05643	.19802	.05502	.17313	.47232	.04921	.95656
#2	10.849	.15579	.05615	.19703	.05531	.16984	.50962	.05022	.95605

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.06465
Stddev	.00122
%RSD	1.8928

#1	.06379
#2	.06552

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69681-A-1-C PDS Acquired: 5/30/2015 18:55:25 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: broanderl Prep Date: Custom ID2: Custom ID3:
Comment: 279384 6010C

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2988.1	50931.	6499.6
Stddev	7.8	182.	5.4
%RSD	.26192	.35707	.08314
#1	2982.5	50802.	6503.4
#2	2993.6	51059.	6495.7

Sample Name: CCVH-3294468 Acquired: 5/30/2015 18:58:03 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0755	48.466	-0.0086	.00322	.00063	-0.00003	.99421	.02643	-0.00029	-0.00029	.00072	-0.00155	47.888
Stddev	.00035	.808	.00303	.00068	.00016	.00000	.00060	.00314	.00023	.00036	.00024	.00046	1.005
%RSD	4.5807	1.6667	352.05	20.949	24.958	1.7155	.06022	11.871	80.794	122.33	32.890	29.583	2.0995

#1	-0.00780	47.895	-0.00300	.00275	.00074	-0.00003	.99379	.02421	-0.00045	-0.00055	.00055	-0.00188	47.177
#2	-0.00731	49.037	.00128	.00370	.00052	-0.00003	.99464	.02865	-0.00012	-0.00004	.00088	-0.00123	48.599

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07676	-0.00070	.04485	-0.00156	-0.00060	246.45	.00254	.00854	.00070	5.2336	-0.01266	.00478	-0.04052
Stddev	.06602	.00095	.00832	.00005	.00009	2.92	.00006	.00031	.00052	.0259	.00203	.00053	.00074
%RSD	86.001	134.32	18.559	3.2583	15.056	1.1842	2.3473	3.6273	74.336	.49409	16.062	11.026	1.8308

#1	.03008	-0.00004	.05074	-0.00160	-0.00054	244.38	.00259	.00876	.00107	5.2519	-.01410	.00441	-.04000
#2	.12344	-0.00137	.03897	-0.00153	-0.00067	248.51	.00250	.00832	.00033	5.2153	-.01123	.00515	-.04105

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.08672	-0.00130	.00040	4.8315	-0.01216	.00304	10.199	.00364	-0.00078	-.12399
Stddev	.00159	.00039	.00010	.0043	.00026	.00070	.003	.00010	.00017	.00082
%RSD	1.8308	30.003	26.087	.08822	2.1380	23.114	.03380	2.6527	21.284	.65789

#1	-0.08560	-0.00158	.00032	4.8345	-0.01235	.00254	10.196	.00371	-0.00090	-.12457
#2	-0.08785	-0.00103	.00047	4.8285	-0.01198	.00353	10.201	.00357	-0.00066	-.12341

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3029.3	52257.	6383.1
Stddev	27.6	30.	207.0
%RSD	.91118	.05685	3.2423

#1	3048.8	52236.	6529.5
#2	3009.7	52278.	6236.8

Sample Name: CCV-3296664 Acquired: 5/30/2015 19:00:44 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48149	.53012	.98970	.51492	.48231	.47507	-.00022	4.8086	.50432	.49581	.51272	.48511	2.3990
Stddev	.00310	.00013	.00412	.00092	.00668	.00751	.00089	.0670	.00067	.00070	.00067	.00027	.0238
%RSD	.64299	.02382	.41610	.17900	1.3859	1.5801	396.96	1.3927	.13188	.14122	.13026	.05601	.99377

#1	.47930	.53004	.99261	.51427	.47759	.46976	.00041	4.7613	.50385	.49631	.51320	.48491	2.3821
#2	.48368	.53021	.98679	.51557	.48704	.48038	-.00086	4.8560	.50479	.49532	.51225	.48530	2.4159

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.196	.96902	19.114	.49170	.48871	5.1666	.49160	1.0261	.97782	.25487	1.0096	.98944	4.7211
Stddev	.718	.01273	.089	.00097	.00001	.0481	.00018	.0001	.00340	.00837	.0011	.00191	.1102
%RSD	1.4890	1.3133	.46455	.19769	.00110	.93116	.03692	.01440	.34778	3.2824	.10644	.19347	2.3342

#1	47.688	.96002	19.051	.49239	.48872	5.1326	.49148	1.0262	.98022	.26078	1.0089	.99079	4.6431
#2	48.703	.97802	19.177	.49101	.48871	5.2007	.49173	1.0260	.97541	.24895	1.0104	.98808	4.7990

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.103	.98745	.48341	.00109	.49030	1.0073	-.04124	.50132	.48083	.47545
Stddev	.236	.00361	.00723	.00073	.00067	.0000	.01055	.00332	.00441	.00883
%RSD	2.3342	.36520	1.4961	67.080	.13643	.00109	25.581	.66133	.91618	1.8574

#1	9.9363	.99000	.47829	.00161	.49077	1.0073	-.03378	.50366	.48394	.46920
#2	10.270	.98490	.48852	.00057	.48983	1.0073	-.04870	.49897	.47771	.48169

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3099.4	54011.	6400.4
Stddev	.5	270.	94.1
%RSD	.01599	.50030	1.4705

#1	3099.8	53820.	6466.9
#2	3099.1	54202.	6333.8

Sample Name: CCB Acquired: 5/30/2015 19:03:13 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0020	.00032	.00100	.00101	.00018	-0.00003	-0.00128	-0.00269	-0.00044	-0.00007	-0.00005	-0.00074	.00287
Stddev	.00042	.00043	.00346	.00004	.00005	.00019	.00148	.00115	.00008	.00037	.00025	.00026	.00237
%RSD	210.37	135.48	345.06	3.7906	25.775	658.63	114.99	42.694	18.739	561.91	482.93	34.881	82.312

#1	-0.00050	.00062	.00345	.00098	.00021	.00011	-0.00024	-0.00350	-0.00039	-0.00033	-0.00023	-0.00092	.00120
#2	.00010	.00001	-0.00145	.00103	.00014	-0.00016	-0.00233	-0.00187	-0.00050	.00020	.00012	-0.00055	.00455

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00701	-0.00144	-0.00379	.00006	.00025	.16975	.00007	-0.00132	-0.00006	.18619	-0.00262	-0.00109	-0.02186
Stddev	.02124	.00007	.00281	.00000	.00058	.00468	.00025	.00208	.00118	.00190	.00305	.00408	.00269
%RSD	303.02	4.5269	73.938	5.0426	226.65	2.7548	340.61	158.13	2090.3	1.0218	116.52	373.16	12.307

#1	-0.02202	-0.00148	-0.00578	.00006	.00066	.16645	.00025	.00016	-0.00089	.18754	-0.00477	-0.00398	-0.02376
#2	.00801	-0.00139	-0.00181	.00006	-0.00015	.17306	-0.00010	-0.00279	.00078	.18484	-0.00046	.00179	-0.01995

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.04677	.00160	.00007	.00303	.00028	-0.00033	-0.03380	-0.00053	-0.00019	-0.00107
Stddev	.00576	.00046	.00007	.00012	.00003	.00312	.01813	.00008	.00129	.00095
%RSD	12.307	28.966	99.227	4.0664	9.5118	949.68	53.634	15.229	696.33	88.613

#1	-0.05084	.00193	.00013	.00295	.00030	-0.00253	-0.02098	-0.00059	.00073	-0.00040
#2	-0.04270	.00127	.00002	.00312	.00026	.00188	-0.04662	-0.00047	-0.00110	-0.00174

Check ?	Chk Pass									
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3134.1	54521.	6380.4
Stddev	5.6	403.	59.9
%RSD	.17905	.73936	.93848

#1	3138.1	54236.	6422.7
#2	3130.1	54806.	6338.1

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00934	.10720	.01555	.10651	.01013	.00091	.10275	.19575	.00509	.01050	.01092	.01424
Stddev	.00000	.00041	.00097	.00039	.00004	.00005	.00149	.00283	.00019	.00017	.00024	.00009
%RSD	.05341	.37922	6.2517	.36779	.39763	5.7648	1.4499	1.4444	3.6502	1.5793	2.2185	.62351

#1	.00934	.10692	.01487	.10679	.01010	.00095	.10170	.19775	.00522	.01062	.01075	.01430
#2	.00935	.10749	.01624	.10623	.01016	.00088	.10381	.19375	.00496	.01038	.01109	.01418

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .47127	2.9860	.00960	.20333	F .01381	.01971	1.1502	.04113	3.0006	.00958	.17171	.00786
Stddev	.00290	.0366	.00165	.00280	.00008	.00018	.0137	.00027	.0004	.00120	.00958	.00067
%RSD	.61618	1.2270	17.152	1.3752	.59109	.92703	1.1915	.66511	.01443	12.527	5.5773	8.5070

#1	.46922	3.0119	.01076	.20531	.01375	.01958	1.1599	.04094	3.0003	.00873	.17848	.00833
#2	.47333	2.9601	.00843	.20135	.01386	.01984	1.1405	.04133	3.0009	.01043	.16494	.00739

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value	.10000				.01000							
Range	30.000%				30.000%							

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01267	.45590	.97564	.10175	.01005	.01688	.01031	.01427	.05231	.01029	.02565	.01445
Stddev	.00095	.01539	.03293	.00033	.00013	.00030	.00026	.00051	.00879	.00037	.00018	.00140
%RSD	7.4883	3.3750	3.3750	.32683	1.2714	1.7754	2.4777	3.5897	16.798	3.5739	.70501	9.7101

#1	.01200	.44502	.95235	.10198	.01015	.01667	.01049	.01391	.05852	.01003	.02577	.01544
#2	.01334	.46679	.99892	.10151	.00996	.01709	.01013	.01464	.04609	.01055	.02552	.01346

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3125.4	54379.	6435.8
Stddev	4.5	69.	14.3
%RSD	.14546	.12642	.22268

#1	3128.6	54330.	6445.9
#2	3122.2	54428.	6425.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00032	.00277	-0.00590	.00219	-0.00001	-0.00011	-0.00176	.01311	-0.00007
Stddev	.00024	.00044	.00154	.00110	.00018	.00004	.00095	.00018	.00001
%RSD	77.258	15.738	26.074	50.188	1362.2	38.054	54.191	1.3593	8.4793

#1	-0.00049	.00308	-0.00481	.00141	-0.00014	-0.00008	-0.00244	.01298	-0.00007
#2	-0.00014	.00246	-0.00699	.00296	.00012	-0.00013	-0.00109	.01323	-0.00008

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00005	-0.00009	-0.00133	.02788	-0.05456	-0.00219	.00138	.00015	-0.00008
Stddev	.00018	.00032	.00012	.00344	.03828	.00087	.00021	.00001	.00045
%RSD	342.24	351.96	9.2846	12.331	70.160	39.495	15.564	9.9141	586.82

#1	-0.00007	.00013	-0.00142	.03031	-0.02749	-0.00280	.00122	.00016	-0.00039
#2	.00018	-0.00031	-0.00124	.02545	-0.08162	-0.00158	.00153	.00014	.00024

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.11774	-0.00002	.00344	-0.00080	F .12587	-0.00088	.00113	-0.02512	-0.05375
Stddev	.01175	.00034	.00290	.00101	.00349	.00070	.00046	.00552	.01180
%RSD	9.9787	2143.9	84.202	127.18	2.7699	79.311	41.204	21.963	21.963

#1	.12605	-0.00025	.00139	-0.00151	.12833	-0.00137	.00080	-.02902	-.06209
#2	.10943	.00022	.00549	-0.00008	.12340	-0.00039	.00146	-.02122	-.04540

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None
High Limit					.10000				
Low Limit					-.10000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00050	.00000	.00147	.00031	-0.00008	.00690	.00007	.00098	-0.00042
Stddev	.00115	.0000	.00046	.00001	.00167	.01542	.00030	.00026	.00112
%RSD	228.54	1241.0	31.298	3.6718	2103.6	223.42	424.73	26.476	267.86

#1	-0.00132	-0.00003	.00114	.00032	.00110	.01781	.00028	.00080	-0.00121
#2	.00031	.00002	.00179	.00030	-0.00126	-0.00400	-0.00014	.00116	.00037

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3169.2	55301.	6559.6
Stddev	5.0	138.	4.6
%RSD	.15646	.24958	.06994

#1	3165.7	55203.	6562.8
#2	3172.7	55398.	6556.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04508	1.9885	1.0048	1.0516	1.9451	.04767	2.0136	46.833	.10278
Stddev	.00003	.0059	.0116	.0027	.0005	.00030	.0003	.047	.00008
%RSD	.07077	.29542	1.1566	.25737	.02659	.62331	.01231	.10014	.08265

#1	.04506	1.9927	1.0130	1.0535	1.9448	.04788	2.0134	46.800	.10272
#2	.04511	1.9844	.99657	1.0497	1.9455	.04746	2.0137	46.866	.10284

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48999	F .20142	.24936	.99021	48.967	.97806	48.626	.50065	1.0267
Stddev	.00059	.00024	.00210	.00648	.086	.00325	.059	.00027	.0012
%RSD	.12037	.12013	.84099	.65391	.17481	.33192	.12070	.05382	.11701

#1	.49041	.20125	.25085	.99479	48.907	.97576	48.667	.50084	1.0259
#2	.48958	.20159	.24788	.98563	49.028	.98035	48.584	.50046	1.0276

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	52.339	.48441	10.628	.49686	2.1484	.52764	2.0543	9.5516	20.440
Stddev	.006	.00026	.012	.00241	.0115	.00623	.0027	.0116	.025
%RSD	.01155	.05349	.11113	.48572	.53697	1.1814	.13321	.12135	.12135

#1	52.335	.48460	10.620	.49516	2.1402	.52323	2.0523	9.5434	20.423
#2	52.343	.48423	10.636	.49857	2.1565	.53204	2.0562	9.5598	20.458

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9929	.97183	1.0067	1.0066	2.0048	2.0694	.51325	.48099	.45031
Stddev	.0114	.00155	.0015	.0006	.0096	.0310	.00115	.00142	.00022
%RSD	.57097	.15981	.15189	.06052	.47981	1.4959	.22472	.29548	.04823

#1	1.9848	.97073	1.0057	1.0070	1.9980	2.0475	.51243	.47998	.45047
#2	2.0009	.97292	1.0078	1.0061	2.0116	2.0913	.51407	.48199	.45016

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3044.0	52792.	6481.3
Stddev	8.1	30.	3.6
%RSD	.26638	.05588	.05619

#1	3038.2	52813.	6478.7
#2	3049.7	52771.	6483.9

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00058	8.6709	.00966	.15911	.16489	.00110	.00126	46.556	.00085
Stddev	.00046	.1126	.00668	.00069	.00221	.00010	.00284	.595	.00026
%RSD	79.367	1.2981	69.095	.43237	1.3377	9.1388	226.02	1.2790	30.766

#1	.00091	8.5913	.01438	.15960	.16333	.00117	-.00075	46.134	.00067
#2	.00026	8.7505	.00494	.15862	.16645	.00103	.00327	46.977	.00104

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00560	.02273	.04756	8.2027	5.9591	.01622	3.5103	.18734	.12054
Stddev	.00016	.00043	.00040	.1139	.1321	.00157	.0037	.00041	.00051
%RSD	2.9460	1.8703	.83969	1.3883	2.2159	9.6773	.10498	.22045	.42622

#1	.00548	.02243	.04727	8.1222	5.8658	.01511	3.5129	.18704	.12017
#2	.00571	.02303	.04784	8.2832	6.0525	.01733	3.5077	.18763	.12090

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.524	.04568	.28263	.02606	18.820	.00440	.00500	22.010	47.101
Stddev	.729	.00029	.00265	.00095	.037	.00213	.00112	.523	1.119
%RSD	2.7501	.63641	.93768	3.6490	.19728	48.341	22.404	2.3760	2.3760

#1	26.008	.04548	.28450	.02673	18.794	.00590	.00421	21.640	46.310
#2	27.039	.04589	.28075	.02539	18.846	.00290	.00579	22.380	47.893

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00550	.17278	.00496	.09469	-.00619	W -.07132	.03303	.26627	.00215
Stddev	.00016	.00246	.00099	.00267	.00002	.00413	.00014	.00165	.00237
%RSD	2.8313	1.4228	19.940	2.8215	.40064	5.7922	.43464	.62085	110.44

#1	.00539	.17104	.00566	.09280	-.00620	-.06840	.03314	.26510	.00382
#2	.00561	.17452	.00426	.09658	-.00617	-.07425	.03293	.26744	.00047

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3148.6	54499.	6660.0
Stddev	3.2	85.	101.9
%RSD	.10108	.15562	1.5301

#1	3146.3	54558.	6732.1
#2	3150.8	54439.	6588.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0018	.09495	.00155	.37796	.00852	-0.0014	.00027	42.297	.00019
Stddev	.00010	.00043	.00160	.00539	.00026	.00000	.00098	.127	.00005
%RSD	55.186	.45550	103.06	1.4270	3.0737	2.9196	363.20	.29949	25.165

#1	-0.0025	.09526	.00268	.37415	.00871	-0.0013	-0.0042	42.387	.00022
#2	-0.0011	.09465	.00042	.38177	.00834	-0.0014	.00096	42.208	.00015

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0003	.00081	.01933	.20659	3.9659	.00885	18.423	.00462	.00091
Stddev	.00012	.00025	.00025	.00405	.0936	.00080	.108	.00007	.00045
%RSD	443.78	31.409	1.3140	1.9619	2.3596	9.0468	.58422	1.5302	48.773

#1	-0.0011	.00063	.01951	.20373	3.8997	.00942	18.500	.00467	.00060
#2	.00006	.00099	.01915	.20946	4.0321	.00828	18.347	.00457	.00123

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	79.422	.00327	.07137	.00427	30.558	-0.00060	-0.00069	1.2373	2.6478
Stddev	.976	.00014	.00073	.00123	.042	.00283	.00208	.0176	.0377
%RSD	1.2290	4.3796	1.0220	28.775	.13760	473.38	301.85	1.4229	1.4229

#1	78.731	.00317	.07085	.00340	30.588	.00140	-0.00216	1.2248	2.6212
#2	80.112	.00337	.07189	.00514	30.528	-0.00260	.00078	1.2497	2.6744

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00115	.19982	.00257	.00279	-0.00397	.01125	.00424	.06344	-0.00053
Stddev	.00004	.00027	.00161	.00021	.00095	.04903	.00071	.00015	.00144
%RSD	3.7952	.13351	62.678	7.6976	23.992	435.84	16.800	.23159	270.92

#1	.00112	.20001	.00143	.00294	-0.00330	.04592	.00474	.06333	-0.0155
#2	.00118	.19963	.00371	.00264	-0.00465	-0.02342	.00373	.06354	.00049

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3092.6	54006.	6543.3
Stddev	.6	205.	11.1
%RSD	.01909	.37898	.16914

#1	3093.0	54150.	6551.1
#2	3092.2	53861.	6535.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0039	.01990	.00105	.07879	.00154	-0.0004	-0.00327	8.5636	-0.00001
Stddev	.00056	.00003	.00254	.00004	.00009	.00007	.00245	.0778	.00024
%RSD	145.34	.16341	241.66	.04910	5.7480	166.14	75.131	.90861	1777.3

#1	-0.00078	.01987	.00285	.07882	.00161	-0.00010	-0.00153	8.5086	.00015
#2	.00001	.01992	-.00074	.07877	.00148	.00001	-.00500	8.6186	-.00018

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00039	.00000	.00341	.04185	.77518	.00143	3.8511	.00093	-0.00003
Stddev	.00039	.00001	.00009	.00119	.04172	.00014	.0280	.00004	.00046
%RSD	101.91	4981.0	2.6862	2.8422	5.3819	9.5460	.72836	3.8968	1446.0

#1	.00067	-.00006	.00334	.04101	.74568	.00133	3.8313	.00091	-.00036
#2	.00011	.00006	.00347	.04269	.80468	.00153	3.8710	.00096	.00030

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.163	.00103	.01487	.00109	6.3370	-0.00336	.00214	.21288	.45556
Stddev	.350	.00005	.00061	.00089	.0319	.00180	.00295	.00490	.01048
%RSD	2.1665	4.7297	4.1060	81.907	.50351	53.580	137.92	2.3009	2.3009

#1	15.915	.00106	.01531	.00172	6.3596	-.00463	.00423	.20941	.44815
#2	16.411	.00099	.01444	.00046	6.3145	-.00209	.00005	.21634	.46297

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00191	.04087	.00339	.00030	-0.00071	-0.01099	.00071	.01229	.00127
Stddev	.00058	.00052	.00020	.00011	.00058	.00145	.00001	.00078	.00010
%RSD	30.679	1.2606	6.0317	37.784	82.074	13.179	.76358	6.3110	7.5060

#1	.00232	.04050	.00353	.00038	-0.00030	-.00996	.00071	.01284	.00134
#2	.00149	.04123	.00324	.00022	-0.00112	-0.01201	.00070	.01174	.00121

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3137.2	54858.	6587.9
Stddev	9.3	388.	20.5
%RSD	.29782	.70726	.31132

#1	3130.6	55133.	6602.4
#2	3143.8	54584.	6573.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04456	2.0549	1.0281	1.4553	1.9561	.04746	F 2.0245	89.455	.10405
Stddev	.00060	.0063	.0037	.0001	.0013	.00023	.0021	.014	.00038
%RSD	1.3450	.30795	.36036	.01063	.06869	.48663	.10441	.01587	.36377

#1	.04414	2.0504	1.0308	1.4552	1.9570	.04730	2.0230	89.445	.10378
#2	.04499	2.0594	1.0255	1.4554	1.9551	.04763	2.0260	89.465	.10432

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49109	W .20208	.27043	1.1366	53.276	.99359	66.819	.50092	1.0400
Stddev	.00068	.00000	.00089	.0094	.118	.00010	.029	.00136	.0026
%RSD	.13789	.00024	.32771	.82806	.22136	.01044	.04414	.27249	.24691

#1	.49061	.20209	.26980	1.1300	53.192	.99352	66.798	.49996	1.0382
#2	.49157	.20208	.27105	1.1433	53.359	.99366	66.840	.50189	1.0418

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	129.97	.48484	W 10.993	.49373	34.310	.53705	2.1232	10.907	23.341
Stddev	.25	.00012	.013	.00071	.005	.00016	.0111	.019	.040
%RSD	.18948	.02539	.11670	.14472	.01331	.03069	.52200	.17227	.17227

#1	129.80	.48493	10.984	.49323	34.306	.53693	2.1311	10.894	23.312
#2	130.15	.48476	11.002	.49424	34.313	.53717	2.1154	10.920	23.369

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2.0364	1.1783	1.0065	1.0102	1.9986	2.0604	.51796	.53188	.45196
Stddev	.0063	.0010	.0032	.0020	.0038	.0074	.00156	.00085	.00155
%RSD	.30915	.08806	.31458	.20004	.19184	.35949	.30058	.16026	.34350

#1	2.0319	1.1776	1.0043	1.0087	2.0013	2.0552	.51686	.53128	.45086
#2	2.0408	1.1791	1.0087	1.0116	1.9959	2.0656	.51906	.53248	.45306

Check ?	Chk Warn	Chk Pass							
High Limit	2.0000								
Low Limit	-.05000								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3016.6	52736.	6614.8
Stddev	9.1	305.	3.6
%RSD	.30110	.57833	.05471

#1	3023.1	52952.	6617.3
#2	3010.2	52520.	6612.2

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04664	2.0993	W 2.4296	1.0594	1.4978	2.0383	.04918	F 2.0831	92.964
Stddev	.00039	.0073	.0315	.0015	.0049	.0097	.00009	.0005	.300
%RSD	.82636	.34900	1.2982	.13958	.32950	.47386	.18324	.02595	.32236

#1	.04637	2.1045	2.4519	1.0605	1.5013	2.0451	.04924	2.0835	93.176
#2	.04691	2.0941	2.4073	1.0584	1.4943	2.0315	.04911	2.0827	92.752

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00					.10000	
Low Limit			3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10662	.50236	W .20625	.27912	1.1771	55.432	1.0343	68.645	.51194
Stddev	.00013	.00166	.00005	.00035	.0041	.295	.0036	.097	.00077
%RSD	.11750	.32945	.02361	.12695	.34886	.53220	.35066	.14193	.15096

#1	.10671	.50353	.20621	.27887	1.1800	55.640	1.0369	68.576	.51140
#2	.10653	.50119	.20628	.27937	1.1742	55.223	1.0317	68.714	.51249

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.10000						
Low Limit			-.01000						

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0660	135.18	.49761	W 11.296	.50710	35.229	.55591	2.1644	11.392
Stddev	.0059	1.15	.00171	.023	.00136	.131	.00179	.0055	.034
%RSD	.54872	.85087	.34446	.19979	.26751	.37071	.32203	.25349	.30114

#1	1.0701	136.00	.49882	11.312	.50614	35.321	.55718	2.1682	11.416
#2	1.0619	134.37	.49640	11.280	.50806	35.137	.55465	2.1605	11.368

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				2.0000					
Low Limit				-1.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.379	W 2.0739	1.2254	1.0328	1.0332	2.0339	2.1425	.52943	.54194
Stddev	.073	.0072	.0059	.0067	.0026	.0117	.0098	.00103	.00045
%RSD	.30114	.34565	.48269	.65392	.25419	.57538	.45509	.19375	.08253

#1	24.431	2.0689	1.2296	1.0376	1.0313	2.0257	2.1356	.53016	.54162
#2	24.327	2.0790	1.2213	1.0281	1.0351	2.0422	2.1494	.52871	.54225

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		2.0000							
Low Limit		-.05000							

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.46682
Stddev	.00253
%RSD	.54128

#1	.46861
#2	.46503

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69783-A-1-C MSD Acquired: 5/30/2015 19:23:21 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: broanderl Prep Date: Custom ID2: Custom ID3:
Comment: 279414 6010B dupont

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	3010.5	52862.	6524.3
Stddev	9.2	59.	41.0
%RSD	.30531	.11074	.62829
#1	3004.0	52903.	6495.3
#2	3017.0	52821.	6553.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04616	1.0611	.20330	.48004	.10248	.04602	.00298	58.430	.05113
Stddev	.00008	.0021	.00555	.00113	.00151	.00080	.00264	.751	.00061
%RSD	.16383	.19685	2.7315	.23587	1.4695	1.7488	88.492	1.2850	1.1924

#1	.04622	1.0625	.19937	.47924	.10142	.04545	.00485	57.899	.05156
#2	.04611	1.0596	.20722	.48084	.10355	.04659	.00112	58.961	.05070

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04769	.05027	.06707	1.0915	22.587	.10664	36.182	.05189	.04958
Stddev	.00037	.00020	.00099	.0211	.181	.00215	.102	.00040	.00023
%RSD	.77305	.39845	1.4791	1.9370	.80312	2.0192	.28194	.77096	.45585

#1	.04795	.05041	.06637	1.0766	22.459	.10512	36.109	.05161	.04942
#2	.04743	.05013	.06777	1.1065	22.715	.10817	36.254	.05218	.04974

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	96.384	.05100	W 2.1782	.10062	30.488	.10184	.20103	5.7818	12.373
Stddev	2.555	.00008	.0126	.00163	.107	.00103	.00407	.1454	.311
%RSD	2.6504	.16001	.57949	1.6215	.35070	1.0072	2.0224	2.5143	2.5143

#1	94.578	.05106	2.1871	.10177	30.563	.10257	.20390	5.6790	12.153
#2	98.190	.05094	2.1693	.09947	30.412	.10112	.19815	5.8846	12.593

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09990	.24017	.19308	.05073	.19140	.48030	.05374	.25324	.04255
Stddev	.00080	.00207	.00049	.00041	.00085	.01775	.00003	.00045	.00096
%RSD	.79750	.86314	.25231	.80740	.44512	3.6965	.04764	.17573	2.2630

#1	.09934	.23870	.19274	.05044	.19200	.49285	.05372	.25356	.04187
#2	.10047	.24163	.19343	.05102	.19080	.46774	.05375	.25293	.04323

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3056.7	53598.	6618.4
Stddev	3.7	168.	77.5
%RSD	.12162	.31285	1.1716

#1	3059.3	53717.	6673.2
#2	3054.1	53480.	6563.6

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00814	48.591	.00284	.00425	.00075	.00002	1.0189	.03542	-.00032	-.00027	.00084
Stddev	.00011	.062	.00114	.00014	.00003	.00005	.0037	.00624	.00005	.00001	.00014
%RSD	1.3545	.12676	40.245	3.2260	3.5685	314.66	.36693	17.614	14.380	4.8680	16.912

#1	-0.00806	48.635	.00364	.00415	.00076	-0.00002	1.0162	.03983	-0.00035	-0.00026	.00074
#2	-0.00822	48.548	.00203	.00434	.00073	.00005	1.0215	.03101	-0.00029	-0.00028	.00094

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00033	48.407	.02369	-.00020	.04485	-.00155	-.00056	246.34	.00179	.00711	.00128
Stddev	.00034	.025	.01120	.00035	.00289	.00004	.00013	.18	.00001	.00188	.00077
%RSD	103.12	.05170	47.273	180.43	6.4537	2.8057	24.042	.07368	.38238	26.380	60.323

#1	-0.00057	48.389	.01577	-.00045	.04690	-.00158	-.00046	246.22	.00180	.00579	.00074
#2	-0.00009	48.425	.03160	.00005	.04280	-.00152	-.00065	246.47	.00179	.00844	.00183

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.0299	-.01176	.00862	-.04470	-.09567	-.00204	.00040	4.9540	-.01239	.00097	W 10.508
Stddev	.0331	.00110	.00307	.01823	.03901	.00189	.00005	.0685	.00001	.00188	.017
%RSD	.65816	9.3472	35.623	40.778	40.778	92.774	12.174	1.3824	.11445	193.01	.16261

#1	5.0065	-.01254	.00645	-.05759	-.12325	-.00337	.00037	5.0024	-.01240	-.00036	10.520
#2	5.0533	-.01098	.01079	-.03181	-.06808	-.00070	.00044	4.9056	-.01238	.00230	10.496

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value											10.000
Range											5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00257	.00049	-.12741
Stddev	.00004	.00009	.00321
%RSD	1.4562	18.367	2.5183

#1	.00259	.00055	-.12968
#2	.00254	.00043	-.12514

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3067.9	53255.	6586.9
Stddev	7.3	206.	32.8
%RSD	.23946	.38607	.49857

#1	3073.1	53110.	6563.6
#2	3062.7	53400.	6610.1

Sample Name: CCV-3296664 Acquired: 5/30/2015 19:30:59 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48460	52934	99874	51910	48355	47407	00102	4.7927	50550	49962	51564	48897	2.3893
Stddev	.00320	.00166	.00665	.00013	.00571	.00619	.00028	.0794	.00103	.00144	.00112	.00232	.0301
%RSD	.66059	.31301	.66558	.02487	1.1817	1.3064	27.288	1.6557	.20317	.28772	.21646	.47544	1.2608

#1	.48687	.53051	1.0034	.51919	.47951	.46969	.00083	4.7366	.50622	.50064	.51486	.49061	2.3680
#2	.48234	.52817	.99404	.51901	.48759	.47845	.00122	4.8489	.50477	.49860	.51643	.48733	2.4106

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.254	97249	19.201	49107	48999	5.0666	49344	1.0267	98174	04635	1.0097	99595	4.6809
Stddev	.707	.01183	.123	.00089	.00028	.0726	.00049	.0018	.00259	.00368	.0011	.00785	.0586
%RSD	1.4659	1.2169	.64220	.18064	.05736	1.4336	.09865	.17793	.26358	7.9346	.10647	.78867	1.2528

#1	47.753	.96412	19.288	.49170	.48979	5.0152	.49378	1.0280	.97991	.04895	1.0105	.99040	4.6395
#2	48.754	.98086	19.113	.49044	.49019	5.1180	.49309	1.0254	.98357	.04375	1.0089	1.0015	4.7224

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.017	99067	48344	-00029	49113	1.0143	-00375	50015	47708	47473
Stddev	.126	.00290	.00653	.00137	.00074	.0019	.02195	.00382	.01013	.00362
%RSD	1.2528	.29227	1.3516	468.37	.14998	.18491	585.55	.76334	2.1242	.76288

#1	9.9285	.98862	.47882	.00068	.49166	1.0130	-.01927	.50285	.48425	.47217
#2	10.106	.99272	.48806	-.00126	.49061	1.0157	.01177	.49745	.46992	.47729

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3110.0	54163.	6480.1
Stddev	4.4	43.	90.5
%RSD	.14169	.07866	1.3972

#1	3106.9	54193.	6544.1
#2	3113.1	54132.	6416.1

Sample Name: CCB Acquired: 5/30/2015 19:33:28 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0043	.00018	-0.00334	.00207	-0.00003	-0.00001	-0.00059	-0.00033	-0.00021	-0.00005	.00021	-0.00072	-0.00106
Stddev	.00010	.00028	.00182	.00018	.00004	.00002	.00048	.00152	.00028	.00010	.00007	.00010	.00259
%RSD	24.653	159.57	54.472	8.9037	132.30	326.56	80.558	460.41	135.28	221.57	32.913	13.487	245.85

#1	-0.00035	-0.00002	-0.00205	.00220	.00000	.00001	-0.00093	-.00141	-.00040	.00003	.00026	-.00066	.00078
#2	-0.00050	.00038	-0.00463	.00194	-0.00006	-0.00002	-0.00026	.00075	-0.00001	-0.00012	.00016	-0.00079	-0.00289

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00504	-0.00170	-0.00132	-0.00004	.00020	.07879	.00018	.00164	-0.00241	.04423	-0.00223	.00391	-0.01186
Stddev	.00691	.00137	.00058	.00006	.00030	.00403	.00006	.00164	.00043	.00122	.00018	.00260	.01934
%RSD	137.01	80.232	43.983	136.17	148.64	5.1138	35.543	99.743	17.642	2.7695	7.8699	66.455	163.04

#1	.00993	-0.00074	-0.00173	.00000	-0.00001	.08164	.00022	.00048	-.00211	.04336	-.00236	.00207	.00181
#2	.00016	-0.00267	-0.00091	-0.00008	.00041	.07594	.00013	.00280	-.00272	.04510	-.00211	.00575	-.02554

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.02538	-0.00010	-0.00003	.00100	.00061	.00079	-0.02526	-0.00054	-0.00018	-0.00044
Stddev	.04139	.00125	.00001	.00035	.00023	.00159	.00516	.00005	.00020	.00071
%RSD	163.04	1267.9	27.924	35.421	37.326	200.60	20.424	9.3093	110.14	161.50

#1	.00388	-0.00098	-0.00002	.00075	.00077	-0.00033	-.02161	-.00058	-.00004	-.00094
#2	-.05465	.00078	-0.00003	.00125	.00045	.00191	-.02891	-.00051	-.00033	.00006

Check ?	Chk Pass									
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3157.8	55476.	6469.1
Stddev	3.3	401.	62.3
%RSD	.10312	.72246	.96268

#1	3160.1	55759.	6513.2
#2	3155.5	55193.	6425.1

Sample Name: CCVL3301032 Acquired: 5/30/2015 19:35:51 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00973	.10739	.01182	.10735	.00964	.00089	.10420	.19858	.00516	.01047	.01103	.01465	.09581	2.9803
Stddev	.00006	.00091	.00102	.00096	.00010	.00003	.00268	.00357	.00014	.00013	.00001	.00083	.00060	.0062
%RSD	.63860	.84294	8.6734	.89313	1.0542	3.4534	2.5674	1.8000	2.7283	1.2312	.10916	5.6620	.62471	.20758

#1	.00968	.10675	.01254	.10667	.00971	.00092	.10231	.20111	.00506	.01038	.01104	.01524	.09538	2.9847
#2	.00977	.10803	.01109	.10803	.00957	.00087	.10609	.19605	.00525	.01056	.01103	.01407	.09623	2.9759

Check ?	Chk Pass													
Value														
Range														

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00933	.20757	.01049	.02002	1.1025	.04159	3.0662	.00919	.04407	.00862	.01703	.43644	.93399	.10347
Stddev	.00033	.00648	.00026	.00034	.0092	.00025	.0096	.00080	.00401	.00087	.00027	.00838	.01793	.00109
%RSD	3.4874	3.1239	2.5174	1.6816	.83377	.59660	.31335	8.7248	9.0912	10.045	1.5807	1.9196	1.9196	1.0536

#1	.00956	.21216	.01068	.02025	1.0960	.04176	3.0730	.00862	.04691	.00923	.01722	.43052	.92131	.10424
#2	.00910	.20299	.01031	.01978	1.1090	.04141	3.0594	.00975	.04124	.00801	.01684	.44237	.94667	.10270

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass								
Value														
Range														

Elem	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01006	.01668	.01042	.01604	.05666	.01083	.02176	.01532
Stddev	.00003	.00158	.00008	.00145	.03576	.00014	.00022	.00121
%RSD	.28674	9.4524	.76351	9.0342	63.109	1.2874	1.0084	7.9060

#1	.01004	.01780	.01048	.01501	.03138	.01093	.02161	.01617
#2	.01008	.01557	.01037	.01706	.08194	.01073	.02192	.01446

Check ?	Chk Pass							
Value								
Range								

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3132.7	54190.	6523.0
Stddev	2.6	920.	25.6
%RSD	.08276	1.6968	.39279

#1	3134.6	53540.	6504.9
#2	3130.9	54841.	6541.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0043	.00263	-0.0013	.00234	-0.0013	.00002	.00025	.01072	-0.0024
Stddev	.00040	.00023	.00197	.00071	.00012	.00005	.00307	.00429	.00017
%RSD	93.035	8.7363	1526.5	30.184	92.952	366.09	1205.8	40.003	71.737

#1	-0.0015	.00246	-0.0152	.00284	-0.0005	-0.0002	.00243	.00768	-0.0036
#2	-0.0071	.00279	.00126	.00184	-0.0022	.00005	-.00192	.01375	-0.0012

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00010	-0.0010	-0.0086	.00746	-0.00828	-0.00124	.00253	.00011	.00007
Stddev	.00024	.00019	.00038	.00374	.00645	.00005	.00032	.00003	.00009
%RSD	233.44	196.28	44.242	50.058	77.885	4.2650	12.539	22.196	124.33

#1	.00027	-0.0023	-0.0113	.01011	-0.0372	-0.0127	.00275	.00013	.00014
#2	-0.0007	.00004	-0.0059	.00482	-.01284	-.00120	.00231	.00010	.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06570	-0.0080	.00315	-0.0004	.04028	-0.00158	.00356	-.02285	-.04889
Stddev	.00927	.00013	.00130	.00097	.00335	.00111	.00316	.00123	.00263
%RSD	14.112	15.959	41.152	2424.1	8.3075	70.630	88.765	5.3763	5.3763

#1	.05914	-0.0089	.00223	-0.0073	.03791	-0.0079	.00132	-.02198	-.04703
#2	.07226	-0.0071	.00407	.00065	.04265	-0.0237	.00579	-.02372	-.05075

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00078	.00003	.00164	.00026	.00046	-0.00880	.00048	.00131	-0.0067
Stddev	.00084	.00004	.00045	.00009	.00337	.01984	.00050	.00013	.00126
%RSD	107.45	125.79	27.622	35.084	727.37	225.44	103.71	9.9949	188.60

#1	.00137	.00005	.00196	.00020	-0.0192	-.02283	.00013	.00140	-0.0156
#2	.00019	.00000	.00132	.00032	.00285	.00523	.00083	.00122	.00022

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3166.8	55149.	6592.2
Stddev	6.2	216.	34.8
%RSD	.19734	.39137	.52760

#1	3162.4	54997.	6567.6
#2	3171.2	55302.	6616.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04568	2.0278	1.0278	1.0860	1.9832	.04822	2.0771	47.573	.10624
Stddev	.00051	.0005	.0047	.0026	.0048	.00006	.0017	.128	.00069
%RSD	1.1114	.02266	.45997	.23676	.24427	.11795	.08044	.26880	.65381

#1	.04532	2.0275	1.0245	1.0842	1.9798	.04818	2.0783	47.482	.10575
#2	.04604	2.0281	1.0311	1.0878	1.9866	.04826	2.0759	47.663	.10673

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50436	F .20588	.25703	.95482	49.687	.99361	49.324	.50905	1.0562
Stddev	.00048	.00008	.00109	.00950	.117	.00294	.019	.00045	.0010
%RSD	.09548	.03853	.42215	.99507	.23453	.29573	.03874	.08896	.09234

#1	.50470	.20594	.25626	.94810	49.604	.99153	49.311	.50873	1.0568
#2	.50402	.20582	.25780	.96153	49.769	.99569	49.338	.50937	1.0555

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	53.511	.49712	10.905	.51035	2.1612	W .54958	2.1617	9.7007	20.760
Stddev	.016	.00004	.005	.00098	.0132	.00292	.0076	.0779	.167
%RSD	.03000	.00816	.04567	.19157	.61120	.53162	.35116	.80345	.80345

#1	53.522	.49709	10.902	.50966	2.1518	.55165	2.1564	9.6456	20.642
#2	53.499	.49715	10.909	.51104	2.1705	.54752	2.1671	9.7559	20.878

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Warn	Chk Pass	Chk Pass	None
High Limit						.54000			
Low Limit						.44000			

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0916	.98932	1.0231	1.0265	2.1048	2.1465	.52108	.48473	.45824
Stddev	.0059	.00096	.0033	.0027	.0135	.0127	.00135	.00152	.00397
%RSD	.28212	.09690	.32578	.26053	.64230	.59412	.25963	.31388	.86603

#1	2.0874	.98864	1.0207	1.0246	2.0953	2.1375	.52012	.48580	.45543
#2	2.0957	.99000	1.0254	1.0284	2.1144	2.1555	.52203	.48365	.46104

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3029.3	52830.	6499.7
Stddev	1.3	46.	28.5
%RSD	.04274	.08733	.43791

#1	3030.2	52798.	6519.8
#2	3028.4	52863.	6479.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0021	.06224	.00882	.08278	.02295	-0.0024	.00177	210.46	-0.0014
Stddev	.00021	.00053	.00013	.00002	.00035	.00001	.00071	.57	.00012
%RSD	100.17	.84713	1.4199	.01853	1.5295	3.9830	40.264	.27075	87.616

#1	-0.0006	.06187	.00891	.08277	.02320	-0.0023	.00228	210.86	-0.0022
#2	-0.0036	.06261	.00873	.08279	.02271	-0.0024	.00127	210.05	-0.0005

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.00092	.00162	.06137	10.262	.02857	42.190	.05206	.06008
Stddev	.00030	.00009	.00008	.00202	.081	.00066	.153	.00047	.00086
%RSD	514.84	9.8091	4.8695	3.2877	.78846	2.3134	.36260	.90143	1.4380

#1	.00027	.00099	.00156	.05994	10.204	.02810	42.298	.05173	.06069
#2	-0.0015	.00086	.00167	.06280	10.319	.02904	42.082	.05239	.05947

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	87.136	.00382	.03611	.00541	177.36	.00149	.01218	6.3540	13.597
Stddev	.928	.00046	.00049	.00094	.00	.00185	.00123	.0664	.142
%RSD	1.0654	12.180	1.3544	17.349	.00030	124.41	10.058	1.0448	1.0448

#1	86.480	.00415	.03577	.00474	177.36	.00018	.01132	6.3070	13.497
#2	87.792	.00349	.03646	.00607	177.36	.00280	.01305	6.4009	13.698

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00028	2.1070	.00302	.00145	-.00897	.57895	.25830	.00038	.00099
Stddev	.00027	.0024	.00139	.00035	.00012	.01923	.00349	.00047	.00238
%RSD	96.824	.11386	46.101	24.327	1.3117	3.3220	1.3514	125.53	240.72

#1	.00009	2.1087	.00203	.00120	-.00889	.59255	.26077	.00071	-.00069
#2	.00047	2.1053	.00400	.00170	-.00906	.56535	.25583	.00004	.00267

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3022.7	53211.	6560.3
Stddev	4.9	343.	47.2
%RSD	.16213	.64371	.71933

#1	3026.2	52969.	6527.0
#2	3019.3	53453.	6593.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00005	.01362	.00212	.01682	.00470	-0.00001	-0.00008	42.791	-0.00022
Stddev	.00013	.00043	.00635	.00050	.00002	.00011	.00116	.333	.00006
%RSD	247.97	3.1733	299.53	2.9616	.36596	1790.4	1510.4	.77868	26.803

#1	.00004	.01331	-.00237	.01718	.00469	.00007	.00075	42.555	-.00018
#2	-.00014	.01392	.00661	.01647	.00471	-.00008	-.00090	43.026	-.00026

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00039	.00043	-0.00018	.01142	1.9760	.00434	8.6968	.01073	.01095
Stddev	.00020	.00020	.00015	.00218	.0157	.00018	.0032	.00004	.00018
%RSD	52.110	46.518	81.388	19.132	.79600	4.0446	.03734	.35848	1.6739

#1	.00025	.00057	-.00029	.01296	1.9872	.00446	8.6945	.01076	.01108
#2	.00053	.00029	-.00008	.00987	1.9649	.00422	8.6991	.01071	.01082

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.957	.00273	.00840	.00176	34.439	-0.00276	.00274	1.2431	2.6602
Stddev	.081	.00020	.00183	.00024	.087	.00006	.00388	.0115	.0247
%RSD	.45381	7.3988	21.826	13.789	.25251	2.3577	141.75	.92710	.92710

#1	17.899	.00287	.00970	.00159	34.377	-.00280	-.00001	1.2349	2.6428
#2	18.014	.00258	.00710	.00193	34.500	-.00271	.00549	1.2512	2.6777

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00154	.42325	.00144	.00028	-0.00478	.12462	.05145	.00017	-0.00011
Stddev	.00008	.00255	.00046	.00037	.00181	.00738	.00013	.00072	.00058
%RSD	5.0267	.60248	31.933	133.76	37.804	5.9249	.26171	420.37	541.40

#1	.00160	.42144	.00111	.00001	-.00606	.11940	.05136	-.00034	.00030
#2	.00149	.42505	.00176	.00054	-.00350	.12984	.05155	.00068	-.00052

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3078.0	54228.	6533.8
Stddev	7.9	227.	36.7
%RSD	.25719	.41868	.56236

#1	3083.6	54389.	6559.8
#2	3072.4	54068.	6507.8

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04439	1.9835	W 2.3889	1.0304	1.1270	1.9259	.04546	F 1.9958	252.66
Stddev	.00053	.0008	.0076	.0045	.0010	.0100	.00027	.0035	2.25
%RSD	1.1903	.04148	.31987	.43253	.08505	.52019	.59701	.17662	.88966

#1	.04477	1.9841	2.3835	1.0336	1.1277	1.9329	.04565	1.9933	254.25
#2	.04402	1.9829	2.3943	1.0273	1.1263	1.9188	.04527	1.9983	251.07

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00					.10000	
Low Limit			3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10265	.47381	W .18710	.24642	.97592	58.697	1.0022	88.314	.53436
Stddev	.00021	.00104	.00028	.00098	.00489	.345	.0042	.546	.00077
%RSD	.20645	.21996	.15005	.39930	.50157	.58708	.42097	.61836	.14399

#1	.10250	.47454	.18729	.24572	.97938	58.940	1.0052	87.928	.53382
#2	.10280	.47307	.18690	.24712	.97245	58.453	.99925	88.701	.53491

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.10000						
Low Limit			-.01000						

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0763	133.34	.46897	W 10.925	.47544	179.41	.53369	2.0997	15.728
Stddev	.0004	.65	.00126	.008	.00059	.32	.00190	.0099	.132
%RSD	.04192	.48728	.26942	.07623	.12358	.17837	.35694	.47195	.84101

#1	1.0759	133.80	.46987	10.919	.47585	179.64	.53234	2.1067	15.634
#2	1.0766	132.88	.46808	10.931	.47502	179.19	.53503	2.0927	15.821

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				2.0000					
Low Limit				-1.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	33.657	1.9750	3.0259	.98365	.98706	1.8903	2.6134	.75291	.45304
Stddev	.283	.0131	.0155	.00210	.00085	.0119	.0598	.00105	.00482
%RSD	.84101	.66425	.51080	.21309	.08641	.62740	2.2898	.13940	1.0641

#1	33.457	1.9843	3.0368	.98514	.98645	1.8986	2.5711	.75365	.44963
#2	33.858	1.9657	3.0150	.98217	.98766	1.8819	2.6557	.75217	.45645

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.43537
Stddev	.00157
%RSD	.36116

#1	.43648
#2	.43426

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69701-A-1-C MS Acquired: 5/30/2015 19:48:34 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: broanderl Prep Date: Custom ID2: Custom ID3:
Comment: 279417 6010B

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2876.3	50563.	6282.8
Stddev	1.6	255.	97.4
%RSD	.05699	.50384	1.5498
#1	2877.5	50743.	6213.9
#2	2875.1	50383.	6351.6

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04444	1.9946	W 2.4491	1.0399	1.1461	1.9768	.04646	F 2.0241	263.74
Stddev	.00077	.0003	.0478	.0009	.0044	.0073	.00010	.0109	2.29
%RSD	1.7395	.01694	1.9536	.08254	.38571	.37049	.21629	.53979	.86755

#1	.04498	1.9944	2.4152	1.0405	1.1492	1.9716	.04638	2.0319	262.13
#2	.04389	1.9949	2.4829	1.0393	1.1430	1.9819	.04653	2.0164	265.36

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00					.10000	
Low Limit			3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10375	.47999	W .19070	.24907	.98586	60.123	1.0286	89.661	.53830
Stddev	.00020	.00010	.00020	.00109	.00080	.196	.0069	.407	.00282
%RSD	.19468	.02010	.10275	.43676	.08150	.32603	.67198	.45428	.52392

#1	.10390	.47993	.19084	.24984	.98530	59.985	1.0237	89.949	.54029
#2	.10361	.48006	.19057	.24830	.98643	60.262	1.0334	89.373	.53631

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.10000						
Low Limit			-.01000						

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0964	138.86	.47474	W 11.074	.47761	W 186.80	.54292	2.1279	16.294
Stddev	.0012	.03	.00035	.011	.00177	.39	.00163	.0030	.115
%RSD	.11095	.02241	.07295	.10087	.36962	.21015	.30061	.14273	.70334

#1	1.0956	138.84	.47449	11.082	.47886	187.08	.54407	2.1301	16.213
#2	1.0973	138.88	.47498	11.066	.47637	186.52	.54177	2.1258	16.375

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit				2.0000		180.00			
Low Limit				-1.0000		-.15000			

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	34.870	1.9988	3.1599	.99522	.99593	1.9097	2.6754	.76318	.45402
Stddev	.245	.0036	.0088	.00465	.00179	.0083	.0403	.00545	.00267
%RSD	.70334	.17916	.27676	.46702	.17989	.43362	1.5060	.71371	.58847

#1	34.697	2.0013	3.1537	.99850	.99719	1.9156	2.7039	.76704	.45591
#2	35.044	1.9963	3.1660	.99193	.99466	1.9039	2.6469	.75933	.45213

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.45195
Stddev	.00154
%RSD	.34020

#1	.45086
#2	.45303

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69701-A-1-D MSD Acquired: 5/30/2015 19:50:58 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: broanderl Prep Date: Custom ID2: Custom ID3:
Comment: 279417 6010B

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2891.2	51196.	6482.8
Stddev	3.7	270.	9.6
%RSD	.12814	.52741	.14793
#1	2893.8	51005.	6489.5
#2	2888.6	51387.	6476.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00017	.00945	.00283	.08025	.03676	-0.00006	.00260	235.12	-0.00016
Stddev	.00012	.00024	.00645	.00003	.00015	.00003	.00133	.89	.00009
%RSD	72.441	2.5044	227.35	.03901	.40061	43.109	51.227	.37779	55.549

#1	-0.00008	.00928	.00739	.08023	.03666	-0.00008	.00354	234.49	-0.00022
#2	-0.00026	.00961	-.00172	.08027	.03686	-0.00004	.00166	235.75	-0.00010

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00080	.00127	.00070	.22486	4.2521	.00942	52.146	.28849	.07436
Stddev	.00013	.00017	.00015	.00488	.0332	.00102	.075	.00062	.00046
%RSD	16.031	13.519	21.430	2.1721	.77998	10.777	.14300	.21580	.61473

#1	.00089	.00114	.00080	.22831	4.2756	.00870	52.094	.28805	.07404
#2	.00071	.00139	.00059	.22141	4.2287	.01014	52.199	.28893	.07469

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	181.85	.00920	.02348	.00394	F 288.52	.00638	.00829	7.8718	16.846
Stddev	.68	.00006	.00481	.00056	2.04	.00040	.00314	.1255	.269
%RSD	.37485	.69311	20.465	14.152	.70617	6.2849	37.910	1.5942	1.5942

#1	181.37	.00915	.02008	.00434	287.08	.00609	.00607	7.9605	17.035
#2	182.33	.00924	.02688	.00355	289.96	.00666	.01052	7.7830	16.656

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00032	1.8104	.00039	.00049	-0.00991	.66340	.00062	.00357	.00083
Stddev	.00128	.0076	.00117	.00030	.00035	.03116	.00031	.00001	.00195
%RSD	400.28	.41954	299.28	61.184	3.5781	4.6965	50.291	.30234	236.13

#1	.00122	1.8051	-.00044	.00028	-.01016	.68543	.00084	.00358	.00221
#2	-.00058	1.8158	.00122	.00070	-.00966	.64136	.00040	.00356	-.00055

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2900.7	50712.	6505.0
Stddev	2.8	338.	11.2
%RSD	.09536	.66561	.17239

#1	2902.7	50951.	6512.9
#2	2898.8	50474.	6497.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00049	.38673	-0.00202	.07478	.03119	-0.00009	-0.00017	201.53	-0.00009
Stddev	.00009	.00214	.00060	.00020	.00044	.00004	.00122	.17	.00001
%RSD	18.104	.55239	29.510	.26189	1.4090	41.688	726.47	.08552	14.199

#1	-0.00043	.38522	-0.00160	.07464	.03088	-0.00007	.00069	201.40	-0.00008
#2	-0.00055	.38824	-0.00245	.07491	.03150	-0.00012	-.00103	201.65	-0.00010

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00020	.00111	.00093	.27987	4.6214	.01982	41.127	.01116	.10674
Stddev	.00026	.00010	.00070	.00490	.0507	.00055	.087	.00020	.00052
%RSD	130.45	8.5984	75.338	1.7502	1.0978	2.7720	.21062	1.7761	.48822

#1	-0.00002	.00104	.00143	.27640	4.5855	.02021	41.066	.01130	.10637
#2	-0.00038	.00118	.00044	.28333	4.6572	.01943	41.188	.01102	.10711

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	82.579	.00404	.02832	.00498	165.36	.00159	.00281	6.6685	14.271
Stddev	2.122	.00004	.00527	.00024	.55	.00005	.00208	.1386	.297
%RSD	2.5694	.88697	18.603	4.8358	.33081	2.8399	73.933	2.0784	2.0784

#1	81.079	.00406	.02459	.00515	164.97	.00162	.00134	6.5705	14.061
#2	84.080	.00401	.03205	.00481	165.75	.00155	.00428	6.7665	14.480

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00043	2.0232	.00123	.00802	-.00789	.29216	.03041	.00455	.00041
Stddev	.00005	.0054	.00092	.00004	.00057	.02960	.00032	.00046	.00130
%RSD	11.521	.26849	75.271	.45963	7.2212	10.131	1.0676	10.034	318.11

#1	.00040	2.0194	.00188	.00805	-.00829	.27123	.03064	.00487	-.00051
#2	.00047	2.0270	.00057	.00799	-.00749	.31309	.03018	.00422	.00133

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2907.6	51084.	6187.6
Stddev	11.7	189.	50.5
%RSD	.40289	.36906	.81583

#1	2915.8	51217.	6151.9
#2	2899.3	50951.	6223.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00037	.14293	.00082	.06010	.01726	-0.00001	.00517	191.74	-0.00004
Stddev	.00033	.00145	.00641	.00053	.00025	.00004	.00165	.26	.00028
%RSD	89.720	1.0122	778.63	.88622	1.4382	295.88	31.837	.13580	722.68

#1	-0.00013	.14395	-0.00371	.05972	.01708	.00001	.00634	191.92	.00016
#2	-0.00060	.14191	.00536	.06047	.01743	-0.00004	.00401	191.55	-0.00024

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00019	.00098	.00162	.13151	5.6382	.03138	45.765	.00445	.26369
Stddev	.00002	.00028	.00003	.00011	.0060	.00078	.261	.00002	.00142
%RSD	11.677	28.899	1.5623	.08035	.10593	2.4915	.57043	.42397	.53946

#1	-0.00021	.00078	.00164	.13143	5.6340	.03193	45.950	.00444	.26470
#2	-0.00017	.00118	.00160	.13158	5.6424	.03082	45.581	.00447	.26269

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	93.117	.00414	.01118	.00312	173.29	.00337	.01976	5.7803	12.370
Stddev	.207	.00036	.00095	.00049	.86	.00146	.00592	.0216	.046
%RSD	.22276	8.7181	8.5149	15.725	.49873	43.186	29.967	.37440	.37440

#1	93.263	.00439	.01185	.00277	173.90	.00441	.02395	5.7956	12.403
#2	92.970	.00388	.01050	.00347	172.67	.00234	.01557	5.7650	12.337

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00241	1.9705	-0.00021	.00384	-0.00844	.90900	.00479	.00166	.00070
Stddev	.00077	.0040	.00023	.00030	.00052	.00650	.00009	.00056	.00015
%RSD	31.928	.20348	112.02	7.8063	6.1121	.71485	1.9525	33.757	21.984

#1	.00187	1.9733	-0.00037	.00363	-0.00880	.90441	.00485	.00126	.00059
#2	.00295	1.9676	-0.00004	.00406	-0.00807	.91360	.00472	.00205	.00081

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2916.0	50750.	6370.2
Stddev	37.4	94.	4.7
%RSD	1.2812	.18607	.07453

#1	2889.6	50683.	6373.6
#2	2942.4	50817.	6366.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0048	.01130	-0.00289	.10296	.02548	-0.0013	-0.00022	270.84	-0.00038
Stddev	.00034	.00006	.00494	.00058	.00076	.00018	.00033	2.74	.00010
%RSD	69.634	.49441	170.77	.56091	2.9774	139.27	149.46	1.0128	25.943

#1	-0.0025	.01126	.00060	.10337	.02601	-0.0026	-0.0045	272.78	-0.0031
#2	-0.0072	.01134	-.00638	.10255	.02494	.00000	.00001	268.90	-0.0044

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0053	.00125	.00061	.06873	2.9370	.06831	73.487	.03979	.04086
Stddev	.00003	.00036	.00039	.00012	.0235	.00088	.018	.00038	.00095
%RSD	5.9148	29.250	64.237	.17102	.80118	1.2907	.02498	.95253	2.3151

#1	-0.0051	.00150	.00089	.06865	2.9537	.06893	73.500	.04006	.04020
#2	-0.0055	.00099	.00033	.06881	2.9204	.06769	73.474	.03952	.04153

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	418.47	.00875	.02556	.00489	F 487.17	.00253	.00820	6.7078	14.355
Stddev	7.31	.00019	.00019	.00184	2.43	.00067	.00024	.0867	.186
%RSD	1.7463	2.1753	.75536	37.605	.49931	26.590	2.9663	1.2928	1.2928

#1	423.64	.00888	.02569	.00359	485.45	.00206	.00837	6.7691	14.486
#2	413.31	.00861	.02542	.00619	488.89	.00301	.00803	6.6465	14.223

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0022	3.6940	.00103	.00034	-0.00798	.24308	-0.00111	.00372	-0.0015
Stddev	.00062	.0640	.00164	.00005	.00074	.03507	.00095	.00039	.00088
%RSD	276.45	1.7317	158.91	15.644	9.2682	14.429	85.439	10.511	584.35

#1	-0.0066	3.7392	-0.0013	.00038	-0.00746	.26788	-0.0044	.00345	.00047
#2	.00021	3.6488	.00220	.00031	-0.00851	.21828	-0.0178	.00400	-0.0077

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2824.4	49724.	6414.7
Stddev	16.3	120.	71.0
%RSD	.57553	.24167	1.1069

#1	2835.9	49639.	6364.5
#2	2812.9	49809.	6464.9

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0721	48.825	.00283	.00191	.00046	.00007	1.0263	.05711	-.00039	-.00057	.00054	-.00060	48.408
Stddev	.00090	.233	.00169	.00029	.00032	.00004	.0014	.00832	.00008	.00016	.00011	.00014	.028
%RSD	12.421	.47780	59.777	15.273	69.331	47.547	.13948	14.576	20.003	28.230	20.057	22.954	.05874

#1	-0.0784	48.990	.00403	.00212	.00023	.00005	1.0253	.06300	-.00044	-.00046	.00061	-.00070	48.388
#2	-.00657	48.660	.00163	.00170	.00068	.00010	1.0273	.05122	-.00033	-.00069	.00046	-.00050	48.428

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05615	.00003	.05172	-.00138	-.00052	246.83	.00175	.00920	.00167	5.0722	-.01033	.00885	-.04691
Stddev	.01977	.00074	.00356	.00006	.00032	.33	.00061	.00060	.00113	.0042	.00323	.00287	.00100
%RSD	35.208	2197.3	6.8752	4.4318	60.774	.13256	34.610	6.4931	68.017	.08254	31.231	32.380	2.1273

#1	.04217	-.00049	.04921	-.00143	-.00075	247.06	.00218	.00878	.00086	5.0752	-.00805	.00682	-.04761
#2	.07013	.00056	.05424	-.00134	-.00030	246.60	.00132	.00962	.00247	5.0693	-.01261	.01088	-.04620

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.10038	-.00104	.00064	4.9081	-.01255	.00027	10.420	.00287	.00000	-.12776
Stddev	.00214	.00097	.00011	.0138	.00049	.00034	.183	.00056	.0002	.00280
%RSD	2.1273	93.106	17.388	.28034	3.8808	126.09	1.7545	19.496	59411.	2.1917

#1	-.10189	-.00035	.00072	4.8984	-.01289	.00003	10.290	.00247	.00017	-.12578
#2	-.09887	-.00172	.00056	4.9178	-.01220	.00051	10.549	.00326	-.00017	-.12974

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3068.0	53893.	6516.5
Stddev	9.6	57.	150.3
%RSD	.31437	.10632	2.3060

#1	3074.8	53853.	6410.2
#2	3061.2	53934.	6622.7

Sample Name: CCV-3296664 Acquired: 5/30/2015 20:06:52 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48978	.53708	1.0047	.52447	.48361	.47355	-.00019	4.7611	.51599	.50381	.52055	.49688	2.3966
Stddev	.00251	.00172	.0063	.00227	.00326	.00266	.00117	.0185	.00054	.00348	.00263	.00256	.0109
%RSD	.51259	.31987	.62408	.43244	.67332	.56193	602.76	.38907	.10550	.68984	.50619	.51444	.45440

#1	.49156	.53587	1.0002	.52287	.48130	.47167	.00063	4.7480	.51638	.50136	.51869	.49869	2.3889
#2	.48801	.53830	1.0091	.52608	.48591	.47543	-.00102	4.7742	.51561	.50627	.52242	.49508	2.4043

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.154	.97435	19.243	.49853	.49647	5.1010	.49727	1.0441	.98695	.04230	1.0269	1.0112	4.6457
Stddev	.285	.00800	.049	.00120	.00278	.0497	.00074	.0093	.00426	.00017	.0071	.0082	.0461
%RSD	.59123	.82084	.25405	.23989	.56089	.97406	.14814	.88966	.43164	.40749	.69396	.81221	.99219

#1	47.953	.96869	19.278	.49769	.49450	5.0659	.49675	1.0376	.98394	.04242	1.0219	1.0054	4.6131
#2	48.355	.98000	19.209	.49938	.49844	5.1362	.49779	1.0507	.98996	.04218	1.0319	1.0170	4.6783

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.9418	.99806	.48388	.00116	.49678	1.0191	-.01687	.50820	.48041	.47102
Stddev	.0986	.00144	.00342	.00064	.00132	.0003	.02122	.00547	.00066	.00112
%RSD	.99219	.14469	.70722	55.051	.26544	.03008	125.81	1.0759	.13804	.23818

#1	9.8720	.99909	.48147	.00071	.49584	1.0194	-.00186	.50433	.47994	.47023
#2	10.012	.99704	.48630	.00161	.49771	1.0189	-.03188	.51206	.48088	.47182

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3103.9	54601.	6628.5
Stddev	2.5	313.	16.7
%RSD	.08092	.57311	.25137

#1	3105.7	54823.	6616.7
#2	3102.1	54380.	6640.3

Sample Name: CCB Acquired: 5/30/2015 20:09:20 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0007	.00161	-0.00121	.00192	-0.00002	-0.00001	-0.00064	.00521	-0.00024	.00025	-0.00002	-0.00116
Stddev	.00016	.00039	.00218	.00063	.00009	.00008	.00387	.00036	.00017	.00013	.00003	.00005
%RSD	227.01	24.280	180.47	33.057	398.66	610.35	602.47	6.9240	70.207	53.422	192.75	4.3719

#1	.00004	.00189	.00033	.00237	-.00008	.00004	-.00338	.00547	-.00036	.00035	-.00004	-.00120
#2	-.00019	.00133	-.00275	.00147	.00004	-.00007	.00210	.00495	-.00012	.00016	.00001	-.00113

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .10592	.00490	-0.00130	-0.00040	.00095	.00026	.14773	.00010	.00235	.00087	.03187	-0.00066
Stddev	.00074	.00787	.00022	.00258	.00001	.00028	.00263	.00023	.00072	.00062	.00230	.00060
%RSD	.69409	160.56	17.308	640.70	1.0377	108.89	1.7798	221.32	30.777	71.696	7.2143	92.181

#1	.10540	-.00066	-.00114	.00142	.00096	.00006	.14587	-.00006	.00184	.00131	.03025	-.00108
#2	.10644	.01047	-.00146	-.00223	.00094	.00046	.14959	.00027	.00286	.00043	.03350	-.00023

Check ?	Chk Fail	Chk Pass										
High Limit	.10000											
Low Limit	-.10000											

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00177	-0.02219	-0.04748	-0.00052	.00008	.00265	.00024	.00065	-0.01211	-0.00007	.00011	.00053
Stddev	.00457	.00389	.00832	.00038	.00002	.00070	.00007	.00205	.00483	.00005	.00039	.00068
%RSD	257.69	17.514	17.514	74.321	27.971	26.273	29.172	316.40	39.883	72.575	374.88	127.37

#1	.00500	-.01944	-.04160	-.00025	.00006	.00216	.00029	.00210	-.00869	-.00011	.00038	.00102
#2	-.00146	-.02493	-.05336	-.00079	.00009	.00314	.00019	-.00080	-.01552	-.00004	-.00017	.00005

Check ?	Chk Pass											
High Limit												
Low Limit												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3133.1	55026.	6612.0
Stddev	1.1	522.	39.2
%RSD	.03584	.94857	.59330

#1	3132.3	54656.	6639.7
#2	3133.9	55395.	6584.2

Sample Name: CCVL330103200 Acquired: 5/30/2015 20:11:43 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00962	.10868	.01502	.10748	.00985	.00089	.10648	.19904	.00540	.01068	.01109	.01481	.09712	3.0228
Stddev	.00038	.00102	.00445	.00055	.00018	.00004	.00306	.00054	.00024	.00001	.00013	.00077	.00104	.0064
%RSD	3.9837	.94279	29.614	.50990	1.8144	4.0922	2.8740	.27277	4.4794	.07396	1.2063	5.2122	1.0665	.21065

#1	.00935	.10940	.01816	.10787	.00998	.00092	.10865	.19943	.00557	.01068	.01119	.01536	.09639	3.0273
#2	.00990	.10795	.01187	.10710	.00972	.00086	.10432	.19866	.00523	.01069	.01100	.01427	.09785	3.0183

Check ?	Chk Pass													
Value														
Range														

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00942	.20542	.01059	.01971	1.1680	.04139	3.0566	.00861	.02715	.00905	.01504	.45023	.96350	.10260
Stddev	.00086	.00750	.00006	.00029	.0056	.00055	.0221	.00189	.00366	.00013	.00384	.00678	.01450	.00233
%RSD	9.1674	3.6511	.54816	1.4674	.47819	1.3333	.72355	21.926	13.474	1.4738	25.528	1.5050	1.5050	2.2716

#1	.01003	.21073	.01063	.01951	1.1719	.04178	3.0722	.00728	.02456	.00914	.01233	.44544	.95325	.10425
#2	.00881	.20012	.01054	.01992	1.1640	.04100	3.0409	.00995	.02974	.00895	.01775	.45503	.97376	.10095

Check ?	Chk Pass	None	Chk Pass											
Value														
Range														

Elem	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01019	.01521	.01059	.01471	.05832	.01031	.02166	.01454
Stddev	.00001	.00190	.00026	.00022	.01199	.00084	.00025	.00034
%RSD	.05330	12.517	2.4556	1.4791	20.565	8.1179	1.1772	2.3612

#1	.01019	.01656	.01041	.01487	.06681	.00972	.02184	.01478
#2	.01019	.01387	.01078	.01456	.04984	.01090	.02148	.01430

Check ?	Chk Pass							
Value								
Range								

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3130.6	54783.	6671.5
Stddev	3.5	20.	17.0
%RSD	.11315	.03651	.25458

#1	3128.1	54769.	6659.5
#2	3133.1	54797.	6683.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0064	.14437	.01592	.07808	.02821	-0.0015	.00459	223.67	-0.00009
Stddev	.00026	.00180	.00528	.00022	.00009	.00003	.00113	.35	.00034
%RSD	39.880	1.2492	33.150	.28801	.33168	22.906	24.605	.15845	367.70

#1	-0.0083	.14564	.01966	.07792	.02828	-0.0018	.00539	223.92	.00015
#2	-0.0046	.14309	.01219	.07824	.02814	-0.0013	.00379	223.42	-0.0034

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00073	.00083	.00138	.10925	14.066	.03295	48.847	1.5319	.08760
Stddev	.00008	.00019	.00059	.00149	.057	.00035	.110	.0061	.00033
%RSD	10.987	22.443	42.952	1.3616	.40619	1.0515	.22546	.40072	.38137

#1	.00067	.00069	.00180	.10819	14.106	.03320	48.925	1.5276	.08784
#2	.00079	.00096	.00096	.11030	14.025	.03271	48.769	1.5363	.08736

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	101.64	.00555	.05295	.00456	F 205.76	.00135	.00763	7.0413	15.068
Stddev	.33	.00050	.00052	.00232	.60	.00477	.00110	.0002	.000
%RSD	.32643	8.9407	.97356	50.894	.29087	351.70	14.440	.00248	.00248

#1	101.87	.00590	.05332	.00620	206.18	.00472	.00685	7.0414	15.069
#2	101.40	.00520	.05259	.00292	205.34	-.00201	.00841	7.0412	15.068

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00087	2.2575	.00012	.00305	W -.01017	.86025	.27864	.00210	.00123
Stddev	.00025	.0039	.00110	.00016	.00124	.00594	.00097	.00072	.00004
%RSD	29.335	.17261	877.60	5.2683	12.172	.69107	.34878	34.348	3.6195

#1	.00105	2.2548	.00090	.00294	-.01104	.85605	.27795	.00261	.00126
#2	.00069	2.2603	-.00065	.00317	-.00929	.86445	.27933	.00159	.00120

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000				
Low Limit					-.01000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2920.7	52157.	6532.6
Stddev	6.4	397.	61.4
%RSD	.22018	.76112	.93941

#1	2925.2	52438.	6489.2
#2	2916.1	51877.	6576.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0030	.11177	.00459	.07609	.02228	-0.0017	.00311	215.31	-0.0017
Stddev	.00032	.00043	.00278	.00160	.00012	.00010	.00008	.47	.00018
%RSD	105.44	.38388	60.631	2.1010	.55155	58.141	2.5669	.21761	111.20

#1	-0.0053	.11207	.00656	.07496	.02219	-0.0010	.00306	215.64	-0.0004
#2	-0.0008	.11146	.00262	.07722	.02236	-0.0024	.00317	214.98	-0.0030

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00023	.00055	.00089	.09945	10.269	.03104	44.784	.40779	.07831
Stddev	.00027	.00011	.00021	.00047	.040	.00017	.070	.00034	.00023
%RSD	114.17	19.117	23.001	.47486	.38952	.54588	.15713	.08267	.30009

#1	.00042	.00048	.00104	.09912	10.241	.03092	44.834	.40803	.07814
#2	.00004	.00063	.00075	.09979	10.297	.03116	44.735	.40755	.07848

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	90.002	.00506	.03577	.00499	W 189.26	.00359	.02375	6.6176	14.162
Stddev	.111	.00022	.00344	.00055	.46	.00254	.00154	.0055	.012
%RSD	.12377	4.3253	9.6106	11.028	.24139	70.803	6.4750	.08273	.08273

#1	89.924	.00491	.03334	.00538	188.94	.00179	.02266	6.6214	14.170
#2	90.081	.00522	.03820	.00461	189.58	.00539	.02484	6.6137	14.153

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					180.00				
Low Limit					-15000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0038	2.1683	.00125	.00273	-0.0907	.72950	.13061	.00065	.00087
Stddev	.00011	.0038	.00232	.00022	.00115	.00149	.00044	.00020	.00069
%RSD	28.668	.17460	185.90	8.0753	12.673	.20376	.33961	29.818	78.844

#1	-0.0030	2.1710	-0.0039	.00257	-0.0825	.72845	.13030	.00079	.00039
#2	-0.0045	2.1656	.00289	.00289	-0.0988	.73055	.13092	.00052	.00136

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2966.4	52839.	6652.1
Stddev	20.5	10.	50.2
%RSD	.69256	.01969	.75425

#1	2980.9	52847.	6616.6
#2	2951.9	52832.	6687.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0024	.02787	-0.00629	.07339	.01530	.00000	.00429	193.65	.00003
Stddev	.00040	.00039	.00094	.00098	.00020	.00004	.00031	.09	.00027
%RSD	164.14	1.4064	14.982	1.3402	1.3107	2306.9	7.3453	.04861	850.22

#1	.00004	.02759	-.00562	.07270	.01544	.00003	.00451	193.72	-.00016
#2	-.00052	.02814	-.00695	.07409	.01516	-.00002	.00406	193.58	.00022

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0060	.00052	.00046	.02298	3.3088	.04015	52.801	.11667	.07369
Stddev	.00017	.00004	.00019	.00270	.0799	.00047	.066	.00005	.00065
%RSD	28.904	7.5902	41.611	11.750	2.4149	1.1617	.12439	.04547	.88875

#1	-.00048	.00055	.00060	.02107	3.2523	.04048	52.755	.11671	.07322
#2	-.00072	.00049	.00032	.02489	3.3653	.03982	52.848	.11663	.07415

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	166.40	.00500	.01380	.00428	F 238.02	-.00015	.02782	5.9797	12.796
Stddev	.28	.00014	.00061	.00132	.40	.00395	.00205	.0514	.110
%RSD	.16817	2.8020	4.4171	30.790	.16728	2654.5	7.3635	.85888	.85888

#1	166.21	.00510	.01337	.00335	237.74	.00264	.02637	5.9434	12.719
#2	166.60	.00490	.01423	.00521	238.30	-.00294	.02927	6.0160	12.874

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00240	2.3229	.00179	.00107	-.00948	.91426	-.00086	.00146	.00062
Stddev	.00026	.0050	.00033	.00007	.00194	.01101	.00029	.00042	.00089
%RSD	10.884	.21498	18.525	6.8435	20.454	1.2042	34.133	29.039	143.47

#1	.00258	2.3264	.00156	.00102	-.00811	.90647	-.00065	.00116	.00124
#2	.00221	2.3193	.00203	.00112	-.01085	.92204	-.00107	.00176	-.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2908.8	52053.	6515.5
Stddev	21.4	51.	33.6
%RSD	.73642	.09758	.51557

#1	2923.9	52017.	6539.2
#2	2893.6	52089.	6491.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00035	.08419	.01273	.07892	.02330	-.00016	.00425	215.80	-.00011
Stddev	.00056	.00103	.00328	.00078	.00044	.00001	.00053	1.48	.00002
%RSD	159.65	1.2204	25.803	.98999	1.8927	3.8232	12.420	.68708	17.664

#1	-.00005	.08492	.01505	.07947	.02298	-.00016	.00462	214.75	-.00012
#2	.00075	.08347	.01041	.07836	.02361	-.00016	.00388	216.85	-.00009

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00016	.00083	.00094	.07851	10.374	.02897	43.076	.05524	.05945
Stddev	.00003	.00010	.00019	.00006	.127	.00139	.220	.00072	.00069
%RSD	16.809	11.951	20.530	.08009	1.2242	4.7886	.51082	1.3076	1.1617

#1	-.00014	.00076	.00080	.07846	10.284	.02995	42.920	.05473	.05994
#2	-.00018	.00090	.00107	.07855	10.464	.02799	43.232	.05575	.05896

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	88.458	.00422	.03774	.00408	175.49	.00283	.01119	6.5150	13.942
Stddev	1.286	.00048	.00138	.00031	2.01	.00098	.00455	.0641	.137
%RSD	1.4543	11.286	3.6687	7.5330	1.1428	34.756	40.610	.98353	.98353

#1	87.548	.00456	.03872	.00386	176.91	.00353	.00798	6.4697	13.845
#2	89.368	.00388	.03676	.00430	174.08	.00213	.01441	6.5603	14.039

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00079	2.1656	.00084	.00188	W -.01150	.59873	.26647	.00212	.00105
Stddev	.00086	.0098	.00041	.00057	.00072	.00439	.00550	.00039	.00069
%RSD	109.30	.45375	48.856	30.140	6.2449	.73324	2.0631	18.515	65.930

#1	.00140	2.1587	.00113	.00229	-.01201	.59563	.26258	.00184	.00056
#2	.00018	2.1726	.00055	.00148	-.01099	.60183	.27036	.00239	.00153

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000				
Low Limit					-.01000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2881.9	50487.	6418.7
Stddev	27.0	256.	105.4
%RSD	.93530	.50722	1.6417

#1	2862.8	50668.	6493.2
#2	2900.9	50306.	6344.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00005	.10171	.00928	.06461	.02439	-.00019	.00871	197.86	-.00019
Stddev	.00009	.00053	.00270	.00035	.00010	.00019	.00356	1.57	.00008
%RSD	201.93	.51837	29.131	.54404	.42771	96.880	40.831	.79374	45.452

#1	-.00002	.10134	.00737	.06436	.02446	-.00033	.00620	198.97	-.00013
#2	.00011	.10208	.01119	.06486	.02432	-.00006	.01123	196.75	-.00025

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00066	.00063	.00144	.08801	12.358	.03034	46.870	1.1681	.13050
Stddev	.00008	.00007	.00038	.00074	.026	.00168	.236	.0048	.00070
%RSD	12.728	11.038	26.250	.84520	.20974	5.5443	.50420	.40774	.53382

#1	.00072	.00058	.00171	.08854	12.376	.02915	47.037	1.1715	.13099
#2	.00060	.00068	.00117	.08749	12.339	.03152	46.703	1.1647	.13001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	98.752	.00593	.03512	.00456	W 181.16	.00417	.01339	6.7215	14.384
Stddev	.076	.00014	.00060	.00109	.01	.00064	.00017	.0117	.025
%RSD	.07656	2.4232	1.6983	23.865	.00618	15.342	1.2711	.17373	.17373

#1	98.806	.00604	.03470	.00379	181.16	.00462	.01351	6.7298	14.402
#2	98.699	.00583	.03554	.00532	181.17	.00372	.01327	6.7133	14.366

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					180.00				
Low Limit					-15000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00045	1.9395	.00188	.00219	-.00844	1.2051	.21958	.00101	.00050
Stddev	.00184	.0149	.00093	.00017	.00179	.0126	.00119	.00052	.00072
%RSD	408.80	.76593	49.325	7.7638	21.237	1.0424	.54160	51.272	144.86

#1	-.00085	1.9500	.00253	.00207	-.00717	1.2139	.22042	.00064	.00101
#2	.00175	1.9290	.00122	.00231	-.00970	1.1962	.21873	.00138	-.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2896.1	50526.	6320.0
Stddev	6.2	156.	56.2
%RSD	.21558	.30822	.88889

#1	2891.7	50416.	6280.2
#2	2900.5	50636.	6359.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0045	.10257	.00649	.06832	.02253	-0.0017	.00513	195.89	-0.0017
Stddev	.00009	.00136	.00653	.00002	.00028	.00002	.00006	1.02	.00033
%RSD	19.383	1.3283	100.51	.02366	1.2576	12.717	1.1178	.52050	198.18

#1	-0.0052	.10161	.01111	.06831	.02233	-0.0018	.00509	195.17	-0.0041
#2	-0.0039	.10354	.00188	.06833	.02273	-0.0015	.00517	196.61	.00007

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0017	.00079	.00094	.07659	6.1644	.03636	52.139	.88803	.19189
Stddev	.00009	.00026	.00021	.00234	.0448	.00119	.247	.00169	.00098
%RSD	51.572	32.664	22.030	3.0590	.72710	3.2780	.47461	.19083	.51029

#1	-0.0010	.00097	.00079	.07493	6.1327	.03721	51.964	.88683	.19120
#2	-0.0023	.00061	.00108	.07825	6.1961	.03552	52.314	.88923	.19258

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	122.30	.00618	.02916	.00515	F 208.64	.00199	.03615	6.5233	13.960
Stddev	1.43	.00011	.00622	.00035	1.77	.00133	.00242	.0610	.130
%RSD	1.1698	1.8087	21.324	6.7114	.84697	66.755	6.7061	.93444	.93444

#1	121.29	.00610	.03356	.00490	207.39	.00105	.03443	6.4802	13.868
#2	123.32	.00626	.02477	.00539	209.89	.00293	.03786	6.5664	14.052

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00152	2.1513	-0.0032	.00215	-0.0834	1.2643	.14478	.00216	.00056
Stddev	.00092	.0161	.00168	.00010	.00261	.0577	.00067	.00010	.00152
%RSD	60.429	.74889	522.63	4.6450	31.358	4.5608	.46382	4.6315	270.50

#1	.00087	2.1399	.00087	.00222	-0.01019	1.2235	.14431	.00223	-0.0051
#2	.00217	2.1627	-0.0151	.00207	-0.0649	1.3051	.14525	.00209	.00164

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2886.9	51244.	6389.7
Stddev	.4	277.	17.5
%RSD	.01217	.53964	.27387

#1	2887.1	51049.	6377.3
#2	2886.6	51440.	6402.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0010	.09791	.01376	.08139	.03421	-0.0030	.00316	209.72	-0.0022
Stddev	.00039	.00114	.00592	.00131	.00051	.00006	.00229	2.68	.00054
%RSD	398.21	1.1646	42.983	1.6078	1.5017	19.341	72.519	1.2796	249.26

#1	-0.0038	.09710	.00958	.08046	.03457	-0.0035	.00477	211.62	.00017
#2	.00018	.09871	.01794	.08231	.03385	-0.0026	.00154	207.83	-0.0060

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0033	.00071	.00069	.06609	8.2493	.03063	42.299	.00221	.04109
Stddev	.00014	.00003	.00029	.00101	.1026	.00046	.638	.00009	.00143
%RSD	41.752	3.6438	41.713	1.5210	1.2436	1.5048	1.5093	4.0075	3.4690

#1	-0.0023	.00069	.00090	.06538	8.3218	.03096	42.751	.00227	.04008
#2	-0.0042	.00073	.00049	.06680	8.1768	.03030	41.848	.00214	.04210

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	88.839	.00340	.03427	.00427	177.38	.00254	.01643	6.3864	13.667
Stddev	.716	.00022	.00152	.00022	2.69	.00240	.00600	.0932	.199
%RSD	.80545	6.4591	4.4327	5.2573	1.5144	94.391	36.531	1.4589	1.4589

#1	89.345	.00325	.03319	.00443	175.48	.00084	.02068	6.4522	13.808
#2	88.333	.00356	.03534	.00411	179.28	.00424	.01219	6.3205	13.526

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00263	2.2763	.00192	.00224	-.00863	.32654	.33110	.00034	.00087
Stddev	.00062	.0292	.00188	.00038	.00161	.02937	.00669	.00049	.00020
%RSD	23.597	1.2818	98.113	17.142	18.621	8.9958	2.0211	146.26	22.508

#1	.00219	2.2969	.00325	.00197	-.00750	.34731	.33583	.00068	.00074
#2	.00307	2.2557	.00059	.00251	-.00977	.30577	.32637	-.00001	.00101

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2910.9	52010.	6574.0
Stddev	5.8	371.	112.0
%RSD	.20005	.71382	1.7035

#1	2906.8	52273.	6494.9
#2	2915.0	51748.	6653.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00048	.17891	.00738	.08047	.03451	-0.00028	.00255	209.45	-0.00021
Stddev	.00004	.00213	.00006	.00065	.00055	.00006	.00303	2.85	.00019
%RSD	7.7081	1.1896	.75486	.81045	1.5840	20.419	118.78	1.3605	88.852

#1	-0.00050	.18041	.00741	.08000	.03412	-0.00032	.00041	207.43	-0.00034
#2	-0.00045	.17740	.00734	.08093	.03489	-0.00024	.00469	211.46	-0.00008

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00024	.00083	.00086	.14769	9.8189	.02839	42.673	.07116	.05474
Stddev	.00008	.00029	.00003	.00182	.1475	.00081	.022	.00001	.00035
%RSD	32.216	34.375	3.1460	1.2291	1.5023	2.8454	.05166	.01809	.64291

#1	-0.00018	.00104	.00088	.14640	9.7146	.02897	42.689	.07117	.05449
#2	-0.00029	.00063	.00084	.14897	9.9232	.02782	42.658	.07115	.05499

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	87.786	.00421	.03851	.00464	W 181.66	.00114	.01542	6.3775	13.648
Stddev	1.582	.00019	.00282	.00079	.08	.00082	.00152	.1141	.244
%RSD	1.8019	4.6176	7.3253	17.117	.04504	71.548	9.8884	1.7895	1.7895

#1	86.667	.00435	.04051	.00408	181.72	.00172	.01650	6.2968	13.475
#2	88.904	.00408	.03652	.00521	181.60	.00056	.01434	6.4582	13.821

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					180.00				
Low Limit					-15000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00127	2.1455	-0.00055	.00325	-0.00865	.54465	.31503	.00103	.00107
Stddev	.00090	.0249	.00021	.00016	.00067	.02887	.00287	.00048	.00116
%RSD	70.562	1.1612	38.249	5.0299	7.7227	5.3004	.91024	46.389	108.67

#1	.00064	2.1279	-0.00040	.00313	-0.00818	.52423	.31705	.00136	.00189
#2	.00190	2.1631	-0.00069	.00337	-0.00912	.56506	.31300	.00069	.00025

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2914.4	51553.	6509.6
Stddev	2.1	69.	95.5
%RSD	.07347	.13308	1.4669

#1	2912.8	51505.	6577.2
#2	2915.9	51602.	6442.1

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00732	49.782	.00093	.00103	.00059	.00002	1.0255	.04943	-.00025	-.00027	.00061
Stddev	.00057	.065	.00141	.00044	.00027	.00007	.0197	.00978	.00019	.00038	.00001
%RSD	7.7817	.13063	151.81	42.395	46.508	322.17	1.9168	19.789	75.876	140.43	2.1976

#1	-0.00773	49.828	.00192	.00133	.00040	-.00003	1.0394	.05635	-.00038	.00000	.00060
#2	-.00692	49.736	-.00007	.00072	.00079	.00007	1.0116	.04251	-.00011	-.00054	.00062

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00163	49.067	.03005	-.00185	.04749	-.00151	-.00091	251.21	.00234	.00651	.00102
Stddev	.00043	.144	.04371	.00049	.00032	.00011	.00005	.35	.00007	.00405	.00029
%RSD	26.552	.29318	145.49	26.355	.68056	7.3029	5.7329	.13849	2.8236	62.250	28.058

#1	-0.00132	48.965	-.00086	-.00150	.04726	-.00159	-.00094	250.96	.00229	.00937	.00122
#2	-.00194	49.169	.06096	-.00219	.04772	-.00143	-.00087	251.45	.00239	.00364	.00082

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.0197	-.01161	.00827	-.05994	-.12827	-.00131	.00048	5.0247	-.01266	.00116	W 10.690
Stddev	.0896	.00265	.00141	.01995	.04269	.00024	.00005	.0172	.00027	.00110	.038
%RSD	1.7857	22.872	17.059	33.278	33.278	18.021	9.4084	.34144	2.1225	95.168	.35584

#1	5.0831	-.01348	.00927	-.04584	-.09809	-.00148	.00051	5.0126	-.01285	.00038	10.716
#2	4.9563	-.00973	.00727	-.07404	-.15846	-.00115	.00045	5.0368	-.01247	.00194	10.663

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value											10.000
Range											5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00297	-.00036	-.12858
Stddev	.00023	.00031	.00010
%RSD	7.7221	86.537	.07906

#1	.00313	-.00014	-.12865
#2	.00281	-.00059	-.12850

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3056.9	53281.	6570.0
Stddev	11.4	100.	6.4
%RSD	.37346	.18788	.09790

#1	3048.8	53352.	6574.5
#2	3065.0	53210.	6565.5

Sample Name: CCV-3296664 Acquired: 5/30/2015 20:38:10 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48346	.51359	.96496	.49939	.49520	.48542	.00144	4.8695	.48964	.48948	.51886	.49118	2.4441
Stddev	.00357	.00536	.00065	.00020	.00068	.00023	.00182	.0124	.00320	.00156	.00488	.00202	.0023
%RSD	.73897	1.0427	.06781	.03996	.13634	.04660	126.04	.25399	.65426	.31834	.94145	.41144	.09327

#1	.48598	.51738	.96450	.49954	.49473	.48558	.00273	4.8608	.48738	.49058	.52231	.49261	2.4457
#2	.48093	.50981	.96542	.49925	.49568	.48526	.00016	4.8783	.49191	.48838	.51540	.48975	2.4425

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.100	.99491	19.078	.50318	.48353	5.1880	.48443	1.0011	.95336	.03875	.98522	.97034	4.8413
Stddev	.137	.00150	.134	.00386	.00149	.0083	.00170	.0029	.00273	.00514	.00262	.00110	.0186
%RSD	.27848	.15065	.70281	.76697	.30723	.15970	.35015	.28917	.28642	13.275	.26642	.11327	.38316

#1	49.003	.99385	19.172	.50591	.48458	5.1822	.48563	1.0032	.95529	.04239	.98708	.97111	4.8282
#2	49.196	.99597	18.983	.50045	.48248	5.1939	.48323	.99907	.95143	.03511	.98337	.96956	4.8545

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.360	.96405	.49528	.00034	.50162	.97686	-.00904	.51587	.48525	.49129
Stddev	.040	.00308	.00041	.00050	.00524	.00068	.00917	.00451	.00209	.00198
%RSD	.38316	.31973	.08202	147.42	1.0444	.06925	101.39	.87445	.43033	.40363

#1	10.332	.96623	.49499	.00069	.50532	.97734	-.01552	.51906	.48673	.49269
#2	10.389	.96187	.49556	-.00001	.49792	.97639	-.00256	.51268	.48378	.48989

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3184.5	54077.	6534.5
Stddev	17.6	299.	9.0
%RSD	.55353	.55315	.13767

#1	3196.9	53866.	6528.1
#2	3172.0	54289.	6540.9

Sample Name: CCB Acquired: 5/30/2015 20:40:39 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0034	-0.0055	.00134	.00101	-0.00017	.00007	.00217	.00058	-0.00043	.00007	.00003	-0.00132	.00143
Stddev	.00016	.00072	.00233	.00045	.00007	.00006	.00025	.00230	.00009	.00007	.00035	.00041	.00064
%RSD	46.169	130.10	173.19	44.560	38.858	82.109	11.369	394.57	21.449	99.075	1351.5	31.143	44.928
#1	-0.0023	-0.00106	.00299	.00069	-0.00012	.00003	.00235	-.00104	-.00037	.00002	.00027	-.00161	.00097
#2	-0.00046	-0.00004	-0.00030	.00133	-0.00022	.00011	.00200	.00220	-0.00050	.00012	-0.00022	-.00103	.00188

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01196	-0.00101	.00151	-0.00006	.00005	.11553	-0.00005	.00337	-0.00017	.02437	.00107	.00140	-.03415
Stddev	.05229	.00024	.00027	.00002	.00033	.00955	.00061	.00091	.00069	.00091	.00058	.00281	.00911
%RSD	437.32	24.104	17.879	40.182	724.21	8.2678	1124.5	26.919	414.97	3.7194	54.228	200.83	26.685
#1	.04893	-0.00118	.00170	-0.00004	.00028	.10878	.00038	.00273	.00032	.02501	.00066	.00338	-.02771
#2	-.02502	-0.00083	.00132	-0.00008	-0.00019	.12229	-0.00049	.00401	-0.00066	.02373	.00148	-.00059	-.04059

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.07308	-0.00005	.00006	.00163	.00042	.00010	-0.00834	.00071	-0.00018	.00214
Stddev	.01950	.00042	.00003	.00131	.00002	.00150	.02506	.00012	.00024	.00078
%RSD	26.685	823.32	57.521	80.608	5.7256	1572.6	300.53	16.858	135.96	36.517
#1	-.05929	-0.00035	.00008	.00070	.00044	-.00097	.00938	.00080	-0.00001	.00269
#2	-.08687	.00025	.00003	.00255	.00040	.00116	-.02606	.00063	-0.00035	.00158

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3178.5	55412.	6779.9
Stddev	1.4	421.	33.5
%RSD	.04320	.75962	.49340
#1	3179.5	55710.	6803.6
#2	3177.5	55115.	6756.2

Sample Name: CCVL3301032 Acquired: 5/30/2015 20:43:03 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00874	.10580	.01635	.10493	.00964	.00095	.10586	.19178	.00494	.01061	.01091	.01396	.09387	2.9241
Stddev	.00008	.00084	.00014	.00201	.00031	.00006	.00256	.00409	.00005	.00033	.00007	.00001	.00497	.0108
%RSD	.86499	.79518	.84868	1.9122	3.2272	6.3105	2.4148	2.1350	.95830	3.0993	.60216	.10448	5.2961	.37049

#1	.00879	.10640	.01625	.10635	.00942	.00091	.10767	.18889	.00491	.01084	.01096	.01397	.09035	2.9165
#2	.00869	.10521	.01645	.10351	.00986	.00099	.10406	.19468	.00497	.01038	.01086	.01395	.09738	2.9318

Check ?	Chk Pass													
Value														
Range														

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00934	.19416	.01023	.02006	1.1109	.04090	2.9880	.00757	.02744	.00784	.01668	.44525	.95284	.10067
Stddev	.00113	.00245	.00005	.00000	.0212	.00063	.0558	.00118	.00459	.00216	.00239	.00805	.01722	.00285
%RSD	12.102	1.2622	.44044	.00151	1.9106	1.5373	1.8660	15.580	16.737	27.589	14.352	1.8070	1.8070	2.8275

#1	.00854	.19243	.01020	.02006	1.0959	.04134	3.0274	.00840	.02420	.00631	.01838	.43956	.94066	.10268
#2	.01014	.19589	.01026	.02006	1.1260	.04045	2.9485	.00674	.03069	.00938	.01499	.45094	.96502	.09865

Check ?	Chk Pass	None	Chk Pass												
Value															
Range															

Elem	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00979	.01826	.01013	.01659	.06435	.01078	.02093	.01499
Stddev	.00016	.00021	.00014	.00288	.02804	.00054	.00057	.00016
%RSD	1.6446	1.1609	1.3557	17.334	43.583	5.0304	2.7248	1.0500

#1	.00968	.01841	.01003	.01863	.08418	.01117	.02133	.01488
#2	.00991	.01811	.01023	.01456	.04452	.01040	.02053	.01510

Check ?	Chk Pass							
Value								
Range								

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3152.7	55547.	6773.7
Stddev	10.8	27.	7.6
%RSD	.34296	.04922	.11239

#1	3145.1	55566.	6779.1
#2	3160.4	55527.	6768.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.00281	.00070	.00092	.00018	.00001	-.00087	.01342	-.00031
Stddev	.00012	.00011	.00266	.00127	.00013	.00001	.00185	.00100	.00010
%RSD	119.18	3.9300	382.16	138.24	73.543	241.55	211.51	7.4489	32.157

#1	.00018	.00289	-.00118	.00182	.00027	.00000	.00043	.01271	-.00038
#2	.00002	.00273	.00258	.00002	.00009	.00002	-.00218	.01412	-.00024

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00022	.00006	-.00152	.00936	.00199	-.00143	-.00003	.00025	-.00023
Stddev	.00031	.00005	.00005	.00026	.02116	.00141	.00410	.00004	.00040
%RSD	141.80	79.238	3.1073	2.7751	1062.4	98.669	15688.	16.176	172.19

#1	.00000	.00003	-.00155	.00955	.01696	-.00243	.00287	.00022	-.00051
#2	.00044	.00010	-.00149	.00918	-.01297	-.00043	-.00292	.00028	.00005

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09376	.00014	.00375	-.00035	.02457	-.00214	-.00149	-.02377	-.05087
Stddev	.00633	.00007	.00089	.00079	.00079	.00073	.00485	.01247	.02668
%RSD	6.7533	52.447	23.732	228.13	3.1978	34.199	324.44	52.451	52.451

#1	.08928	.00020	.00438	.00021	.02402	-.00266	.00193	-.01495	-.03200
#2	.09823	.00009	.00312	-.00091	.02513	-.00162	-.00492	-.03259	-.06973

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00126	.00002	.00250	.00039	-.00104	-.02120	.00053	.00084	.00015
Stddev	.00038	.00001	.00066	.00024	.00009	.02860	.00020	.00029	.00107
%RSD	30.317	64.065	26.535	61.832	8.7791	134.90	37.237	34.271	700.17

#1	.00153	.00001	.00297	.00022	-.00110	-.00098	.00067	.00063	-.00060
#2	.00099	.00003	.00203	.00056	-.00097	-.04143	.00039	.00104	.00091

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3199.1	56903.	6909.4
Stddev	10.8	187.	65.8
%RSD	.33752	.32919	.95221

#1	3206.7	57036.	6862.8
#2	3191.4	56771.	6955.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .04273	1.9339	.99435	1.0417	1.9297	.04684	1.9885	45.596	.10100
Stddev	.00013	.0050	.00066	.0006	.0171	.00023	.0025	.429	.00015
%RSD	.31252	.25596	.06665	.05702	.88692	.49819	.12485	.94194	.14566

#1	.04263	1.9374	.99482	1.0421	1.9418	.04700	1.9903	45.900	.10111
#2	.04282	1.9304	.99388	1.0413	1.9176	.04667	1.9868	45.293	.10090

Check ?	Chk Fail	Chk Pass	None	Chk Pass	Chk Pass				
High Limit	.05750								
Low Limit	.04275								

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48697	F .20134	.24029	.93785	48.059	.96843	F 45.814	.48658	1.0255
Stddev	.00050	.00068	.00045	.00933	.422	.00956	.108	.00182	.0007
%RSD	.10259	.33549	.18790	.99521	.87812	.98667	.23470	.37481	.06886

#1	.48732	.20086	.23997	.94445	48.358	.97519	45.890	.48787	1.0260
#2	.48661	.20182	.24061	.93125	47.761	.96167	45.738	.48529	1.0250

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit		.05750					56.500		
Low Limit		.04275					46.000		

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.853	.48031	10.478	.48526	2.0321	.52316	2.0206	9.3177	19.940
Stddev	.107	.00059	.054	.00339	.0257	.00924	.0188	.0190	.041
%RSD	.20623	.12291	.51488	.69817	1.2672	1.7667	.93168	.20381	.20381

#1	51.929	.48073	10.516	.48765	2.0503	.52969	2.0339	9.3311	19.969
#2	51.778	.47990	10.440	.48286	2.0139	.51662	2.0073	9.3042	19.911

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9635	.96369	.98405	.98388	1.9551	2.0268	.50085	.45474	.44846
Stddev	.0160	.00752	.00222	.00264	.0225	.0042	.00205	.00413	.00391
%RSD	.81272	.78032	.22525	.26787	1.1529	.20934	.40870	.90799	.87118

#1	1.9748	.96901	.98561	.98574	1.9710	2.0238	.50229	.45766	.45122
#2	1.9522	.95837	.98248	.98202	1.9391	2.0298	.49940	.45182	.44570

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3051.7	54412.	6850.7
Stddev	3.9	273.	71.5
%RSD	.12813	.50166	1.0431

#1	3049.0	54219.	6800.2
#2	3054.5	54605.	6901.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00038	.56624	.01208	.08204	.03317	-.00025	.00501	220.30	-.00006
Stddev	.00025	.02617	.00450	.00364	.00025	.00003	.00083	.74	.00015
%RSD	66.724	4.6221	37.227	4.4347	.76505	10.800	16.550	.33736	234.13

#1	.00020	.54774	.00890	.07947	.03299	-.00023	.00443	219.77	-.00017
#2	.00056	.58475	.01526	.08461	.03335	-.00027	.00560	220.83	.00004

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00005	.00110	.00185	.38893	11.651	.03059	47.049	.21810	.06924
Stddev	.00018	.00017	.00021	.00690	.112	.00001	.223	.00047	.00318
%RSD	339.85	15.146	11.272	1.7737	.96343	.03693	.47331	.21704	4.5979

#1	-.00007	.00122	.00200	.38405	11.571	.03059	47.206	.21843	.06699
#2	.00018	.00099	.00170	.39381	11.730	.03060	46.891	.21776	.07149

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	95.018	.00584	.05771	.00185	W 194.29	.00345	.02450	7.6423	16.355
Stddev	1.563	.00016	.00518	.00085	9.58	.00307	.00146	.1219	.261
%RSD	1.6455	2.7260	8.9681	45.678	4.9288	89.008	5.9700	1.5954	1.5954

#1	93.913	.00573	.05405	.00125	187.51	.00128	.02347	7.5561	16.170
#2	96.124	.00595	.06137	.00245	201.06	.00562	.02554	7.7286	16.539

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					180.00				
Low Limit					-15000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00199	2.2505	.00036	.01300	-.00883	.74727	.33190	.00380	.00097
Stddev	.00002	.0049	.00351	.00009	.00176	.05882	.00219	.00013	.00118
%RSD	1.1720	.21642	982.07	.66598	19.898	7.8711	.66079	3.5462	122.11

#1	.00200	2.2471	.00284	.01294	-.00758	.70568	.33345	.00370	.00013
#2	.00197	2.2540	-.00212	.01306	-.01007	.78886	.33035	.00389	.00181

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2896.1	50762.	6597.4
Stddev	99.7	244.	44.4
%RSD	3.4428	.48102	.67312

#1	2966.6	50589.	6628.8
#2	2825.6	50935.	6566.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0065	.30131	.01646	.08674	.03144	-0.0022	-0.00036	239.48	-0.00036
Stddev	.00039	.00140	.00194	.00037	.00003	.00010	.00071	2.65	.00002
%RSD	59.285	.46430	11.777	.42170	.09024	44.810	193.77	1.1064	4.6273

#1	-0.00093	.30032	.01509	.08648	.03146	-0.00015	.00013	237.61	-0.00035
#2	-0.00038	.30230	.01783	.08699	.03142	-0.00029	-0.00086	241.35	-0.00037

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0016	.00086	.00113	.21450	6.3069	.04318	50.868	.00512	.02491
Stddev	.00008	.00006	.00002	.00201	.0538	.00096	.430	.00008	.00028
%RSD	50.548	6.8909	1.8554	.93592	.85274	2.2172	.84619	1.5222	1.1118

#1	-0.00022	.00082	.00114	.21308	6.2689	.04250	51.172	.00507	.02472
#2	-0.00010	.00091	.00111	.21592	6.3450	.04386	50.564	.00518	.02511

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	106.06	.00423	.03228	.00493	F 214.56	.00342	.02124	6.6744	14.283
Stddev	.83	.00003	.00252	.00138	1.56	.00259	.00408	.0721	.154
%RSD	.78151	.69240	7.8183	27.931	.72554	75.687	19.206	1.0808	1.0808

#1	106.65	.00421	.03407	.00590	213.46	.00525	.01836	6.6234	14.174
#2	105.48	.00425	.03050	.00395	215.66	.00159	.02413	6.7254	14.392

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	2.9087	.00171	.00764	W -.01044	.17389	.35575	.00416	.00127
Stddev	.00041	.0066	.00038	.00045	.00042	.04002	.00063	.00006	.00027
%RSD	473.44	.22873	22.085	5.9369	3.9845	23.013	.17632	1.5174	21.670

#1	-0.00020	2.9040	.00144	.00796	-0.01015	.20219	.35530	.00420	.00146
#2	.00037	2.9134	.00197	.00732	-0.01074	.14560	.35619	.00411	.00107

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000				
Low Limit					-0.1000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2961.6	53439.	6867.1
Stddev	30.3	28.	57.4
%RSD	1.0215	.05257	.83591

#1	2983.0	53420.	6907.7
#2	2940.3	53459.	6826.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0012	.33625	.01473	.07902	.03769	-0.0024	.00027	217.30	-0.0014
Stddev	.00000	.00011	.00183	.00085	.00068	.00005	.00148	1.36	.00007
%RSD	2.3926	.03419	12.444	1.0756	1.8023	20.669	556.83	.62629	49.865

#1	-0.0012	.33634	.01343	.07842	.03817	-0.0020	.00131	218.26	-0.0018
#2	-0.0012	.33617	.01602	.07962	.03721	-0.0027	-0.00078	216.34	-0.0009

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00000	.00090	.00084	.23892	8.0359	.03476	44.991	.01063	.03716
Stddev	.0000	.00003	.00063	.00100	.0796	.00057	.146	.00026	.00015
%RSD	738.58	3.1337	75.332	.42008	.99035	1.6321	.32398	2.4148	.40673

#1	-0.0003	.00088	.00039	.23962	8.0922	.03516	44.888	.01045	.03727
#2	.00002	.00092	.00129	.23821	7.9796	.03436	45.094	.01081	.03706

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	98.084	.00372	.03760	.00338	W 187.22	.00196	.01727	6.7267	14.395
Stddev	1.587	.00014	.00416	.00058	.20	.00192	.00248	.1175	.251
%RSD	1.6179	3.6431	11.072	17.287	.10651	98.170	14.364	1.7469	1.7469

#1	99.206	.00382	.04054	.00379	187.36	.00332	.01902	6.8098	14.573
#2	96.962	.00363	.03465	.00297	187.08	.00060	.01551	6.6436	14.217

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					180.00				
Low Limit					-15000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00146	2.4599	.00059	.00647	-.00798	.29589	.35142	.00396	.00018
Stddev	.00028	.0093	.00073	.00022	.00200	.00421	.00970	.00018	.00032
%RSD	19.027	.37771	123.13	3.3494	25.089	1.4243	2.7601	4.5223	173.72

#1	.00126	2.4665	.00008	.00632	-.00657	.29887	.34456	.00383	.00041
#2	.00165	2.4533	.00111	.00662	-.00940	.29291	.35827	.00409	-.00004

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3041.2	53348.	6711.1
Stddev	8.9	122.	43.6
%RSD	.29375	.22796	.65019

#1	3034.9	53434.	6680.3
#2	3047.5	53262.	6742.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00052	.01033	-0.00124	.07116	.01513	.00002	.00363	201.16	-0.00035
Stddev	.00017	.00045	.00801	.00049	.00017	.00008	.00029	.28	.00017
%RSD	31.645	4.3510	647.88	.68317	1.0936	454.55	8.0222	.14116	49.592

#1	-0.00064	.01001	.00443	.07082	.01525	-0.0004	.00383	201.36	-0.00047
#2	-0.00041	.01065	-0.00690	.07150	.01502	.00007	.00342	200.95	-0.00022

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00009	.00071	-0.00012	.00903	3.8687	.02989	41.767	.00028	.13759
Stddev	.00041	.00013	.00017	.00203	.0250	.00268	.030	.00004	.00085
%RSD	479.13	18.412	141.53	22.424	.64506	8.9527	.07156	13.487	.61485

#1	.00020	.00062	.00000	.01047	3.8863	.02799	41.746	.00031	.13699
#2	-0.00038	.00080	-0.00024	.00760	3.8510	.03178	41.788	.00026	.13818

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	90.141	.00397	.00793	.00563	168.28	.00317	.00354	5.8252	12.466
Stddev	.465	.00021	.00077	.00108	.23	.00263	.00800	.0342	.073
%RSD	.51601	5.2971	9.6879	19.238	.13928	83.010	225.91	.58687	.58687

#1	89.812	.00382	.00847	.00486	168.44	.00502	.00920	5.8010	12.414
#2	90.470	.00412	.00739	.00640	168.11	.00131	-0.00212	5.8494	12.518

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00159	2.1067	.00148	.00051	W -.01078	.37266	.02213	.00137	.00172
Stddev	.00039	.0029	.00041	.00025	.00086	.00706	.00020	.00011	.00078
%RSD	24.421	.13806	27.591	49.022	7.9815	1.8936	.92245	7.8897	45.440

#1	.00186	2.1088	.00119	.00034	-0.1139	.37765	.02227	.00129	.00117
#2	.00131	2.1047	.00177	.00069	-0.1017	.36767	.02199	.00144	.00228

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000				
Low Limit					-0.1000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2960.6	52143.	6599.7
Stddev	11.1	110.	22.3
%RSD	.37526	.21106	.33808

#1	2952.7	52221.	6615.5
#2	2968.5	52065.	6583.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0021	.00457	.00103	.01109	.08422	-0.0001	.00314	20.209	.00006
Stddev	.00049	.00028	.00382	.00041	.00008	.00000	.00109	.041	.00029
%RSD	233.53	6.0750	370.23	3.7186	.09339	3.7094	34.789	.20181	447.82

#1	.00014	.00477	-.00167	.01080	.08428	-.00001	.00392	20.237	.00027
#2	-.00056	.00437	.00374	.01139	.08417	-.00001	.00237	20.180	-.00014

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0002	.00033	-0.00107	.03530	.86378	.00577	4.3370	.00038	-0.00076
Stddev	.00031	.00002	.00001	.00007	.01828	.00083	.0129	.00001	.00001
%RSD	1777.7	7.1534	1.0747	.20902	2.1165	14.311	.29820	2.2896	.82700

#1	.00020	.00034	-.00108	.03525	.87671	.00518	4.3462	.00038	-.00076
#2	-.00024	.00031	-.00106	.03535	.85085	.00635	4.3279	.00037	-.00077

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.562	.00138	.02776	.00026	7.5796	-.00148	.00367	10.483	22.433
Stddev	.083	.00026	.00330	.00039	.0488	.00189	.00376	.036	.077
%RSD	.57089	18.747	11.897	149.20	.64402	127.22	102.42	.34373	.34373

#1	14.504	.00120	.03010	.00053	7.5451	-.00015	.00101	10.457	22.378
#2	14.621	.00156	.02543	-.00001	7.6141	-.00282	.00634	10.508	22.487

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00162	.13533	.00262	-.00005	-.00185	-.02835	.00078	.00161	.00119
Stddev	.00035	.00017	.00092	.00053	.00011	.02930	.00019	.00009	.00013
%RSD	21.498	.12264	35.171	996.11	6.1550	103.35	24.446	5.7549	11.220

#1	.00187	.13522	.00197	.00032	-.00193	-.00763	.00064	.00154	.00129
#2	.00138	.13545	.00327	-.00043	-.00177	-.04906	.00091	.00167	.00110

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3130.9	54573.	6704.6
Stddev	7.3	146.	40.1
%RSD	.23287	.26747	.59815

#1	3125.7	54470.	6676.3
#2	3136.0	54676.	6733.0

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00752	47.684	.00427	.00082	.00072	.00003	1.0088	.03343	-0.00026	-0.00028	.00047	-0.00162	47.548
Stddev	.00015	.160	.00025	.00070	.00005	.00001	.0045	.00274	.00001	.00056	.00001	.00020	.032
%RSD	1.9795	.33485	5.7506	85.093	6.9329	20.211	.44584	8.1914	5.6103	201.25	2.8648	12.597	.06723

#1	-0.00763	47.797	.00445	.00131	.00076	.00003	1.0056	.03536	-0.00025	-0.00067	.00046	-0.00176	47.570
#2	-0.00742	47.571	.00410	.00033	.00069	.00004	1.0120	.03149	-0.00027	.00012	.00048	-0.00148	47.525

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04011	-0.00105	.04997	-0.00154	-0.00023	239.91	.00228	.00771	.00125	4.9477	-0.00994	.00290	-0.04931
Stddev	.01507	.00020	.00881	.00005	.00018	1.73	.00002	.00102	.00021	.0407	.00020	.00061	.00348
%RSD	37.576	19.192	17.624	2.9267	79.956	.72002	.71876	13.177	16.732	.82252	2.0184	20.970	7.0552

#1	.02945	-0.00091	.04375	-0.00151	-0.00036	241.13	.00227	.00699	.00140	4.9189	-0.01008	.00333	-.05177
#2	.05076	-0.00120	.05620	-0.00157	-0.00010	238.69	.00229	.00843	.00110	4.9765	-0.00979	.00247	-.04685

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.10551	-0.00117	.00034	4.8813	-0.01173	.00192	10.379	.00325	-0.00068	-0.12624
Stddev	.00744	.00000	.00006	.0125	.00028	.00058	.096	.00029	.00019	.00319
%RSD	7.0552	.01796	18.071	.25572	2.3877	30.139	.92358	9.0518	28.720	2.5261

#1	-.11078	-0.00117	.00029	4.8902	-0.01193	.00151	10.311	.00304	-0.00081	-.12850
#2	-.10025	-0.00117	.00038	4.8725	-0.01154	.00233	10.447	.00346	-0.00054	-.12399

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3087.0	54356.	6846.9
Stddev	7.5	295.	11.7
%RSD	.24160	.54350	.17078

#1	3092.2	54147.	6838.6
#2	3081.7	54565.	6855.2

Sample Name: CCV-3296664 Acquired: 5/30/2015 21:06:28 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47699	.52904	.98795	.51522	.47682	.46728	.00116	4.6996	.50305	.50082	.51688	.48315	2.3715
Stddev	.00026	.00074	.00063	.00233	.00247	.00184	.00307	.0250	.00096	.00298	.00295	.00076	.0118
%RSD	.05366	.14027	.06383	.45181	.51819	.39471	265.77	.53223	.19077	.59566	.57155	.15833	.49942

#1	.47681	.52851	.98751	.51357	.47508	.46597	.00333	4.6819	.50237	.49871	.51479	.48369	2.3631
#2	.47717	.52956	.98840	.51686	.47857	.46858	-.00102	4.7173	.50373	.50292	.51897	.48261	2.3799

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	47.393	.95742	18.784	.49390	.49354	5.0091	.49541	1.0244	.97504	.02617	1.0049	.98835	4.6369
Stddev	.101	.00010	.049	.00041	.00206	.0029	.00304	.0062	.00879	.00482	.0059	.00412	.0592
%RSD	.21237	.01053	.26042	.08312	.41728	.05798	.61267	.60224	.90197	18.409	.58614	.41637	1.2762

#1	47.321	.95735	18.750	.49361	.49209	5.0112	.49326	1.0200	.96883	.02958	1.0008	.98544	4.5950
#2	47.464	.95750	18.819	.49419	.49500	5.0070	.49755	1.0288	.98126	.02276	1.0091	.99126	4.6787

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.9229	.98525	.47689	.00039	.49128	1.0012	-.01236	.50414	.47738	.46823
Stddev	.1266	.00358	.00181	.00419	.00145	.0051	.02715	.00301	.00429	.00076
%RSD	1.2762	.36290	.38029	1072.3	.29610	.51305	219.60	.59623	.89838	.16187

#1	9.8334	.98272	.47560	.00335	.49025	.99761	-.03156	.50202	.47434	.46770
#2	10.012	.98778	.47817	-.00257	.49231	1.0049	.00683	.50627	.48041	.46877

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3103.4	54282.	6645.6
Stddev	1.4	48.	47.4
%RSD	.04473	.08832	.71329

#1	3104.4	54315.	6679.1
#2	3102.4	54248.	6612.1

Sample Name: CCB Acquired: 5/30/2015 21:08:58 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0043	-0.0006	-0.0040	.00078	-0.0013	.00000	.00005	-0.00406	-0.00019	.00010	.00002	-0.00126	-0.00062
Stddev	.00031	.00074	.00299	.00007	.00034	.00010	.00024	.00346	.00003	.00002	.00003	.00016	.00015
%RSD	71.546	1207.1	751.80	8.7348	264.59	3760.4	483.21	85.233	16.559	24.188	135.27	12.261	23.870
#1	-0.00065	.00046	.00172	.00083	.00011	.00007	-0.0012	-0.00651	-0.00021	.00012	.00000	-0.00116	-0.00052
#2	-0.00021	-0.00058	-0.00251	.00073	-0.00036	-0.00007	.00022	-0.00161	-0.00017	.00008	.00004	-0.00137	-0.00073

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.02810	-0.00122	-0.00068	-0.00002	.00028	.10249	.00021	.00043	-0.00159	.02092	-0.00087	-0.00157	-0.03902
Stddev	.01931	.00137	.00030	.00002	.00017	.00064	.00025	.00191	.00021	.00481	.00099	.00135	.00083
%RSD	68.696	111.89	44.450	113.79	59.915	.62153	119.58	445.65	13.498	22.973	113.07	85.430	2.1188
#1	-0.04176	-0.00026	-0.00046	.00000	.00039	.10204	.00038	.00178	-0.00174	.01752	-0.00157	-0.00062	-0.03961
#2	-0.01445	-0.00219	-0.00089	-0.00003	.00016	.10294	.00003	-0.00092	-0.00144	.02432	-0.00017	-0.00253	-0.03844

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.08351	-0.00027	.00002	.00147	.00025	-0.00128	-0.04328	.00025	.00037	.00086
Stddev	.00177	.00048	.00001	.00046	.00019	.00029	.01616	.00053	.00001	.00193
%RSD	2.1188	179.80	33.725	31.350	74.537	22.389	37.340	210.79	2.8859	224.30
#1	-0.08476	.00007	.00002	.00180	.00012	-0.00108	-0.05471	.00063	.00038	.00223
#2	-0.08226	-0.00061	.00003	.00115	.00038	-0.00148	-0.03185	-0.00012	.00037	-0.00050

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3132.6	54529.	6572.6
Stddev	4.2	550.	22.8
%RSD	.13285	1.0088	.34690
#1	3135.6	54140.	6556.5
#2	3129.7	54918.	6588.8

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00906	.10441	.01454	.10446	.00947	.00086	.10149	.19046	.00499	.01018	.01026	.01348
Stddev	.00010	.00034	.00384	.00094	.00005	.00005	.00144	.00411	.00002	.00009	.00012	.00009
%RSD	1.0727	.32168	26.408	.89599	.51747	5.4714	1.4182	2.1586	.49847	.90177	1.1462	.68384

#1	.00899	.10417	.01182	.10380	.00951	.00083	.10251	.18755	.00500	.01011	.01034	.01355
#2	.00913	.10465	.01725	.10512	.00944	.00090	.10047	.19336	.00497	.01024	.01017	.01342

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09511	2.8449	.00944	.18820	.01015	.01934	1.0830	.03971	2.9777	.00901	.02083	F .00653
Stddev	.00015	.0252	.00021	.00130	.00003	.00046	.0075	.00025	.0021	.00217	.00465	.00243
%RSD	.15579	.88619	2.2394	.68939	.32171	2.3655	.69401	.63797	.06903	24.096	22.349	37.234

#1	.09522	2.8628	.00929	.18912	.01012	.01902	1.0883	.03953	2.9763	.00747	.01753	.00825
#2	.09501	2.8271	.00959	.18729	.01017	.01967	1.0777	.03989	2.9792	.01054	.02412	.00481

Check ?	Chk Pass	None	Chk Fail									
Value												.01000
Range												-30.000%

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01400	.45169	.96661	.10138	.00966	.01541	.00988	.01658	.06705	.01070	.02093	.01400
Stddev	.00059	.00966	.02067	.00075	.00005	.00055	.00020	.00379	.01204	.00026	.00143	.00162
%RSD	4.2165	2.1379	2.1379	.74358	.54780	3.5943	2.0425	22.875	17.963	2.4395	6.8388	11.575

#1	.01358	.44486	.95200	.10191	.00962	.01580	.00974	.01390	.05854	.01088	.01992	.01285
#2	.01442	.45852	.98122	.10085	.00969	.01502	.01003	.01926	.07557	.01051	.02195	.01515

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3106.9	54906.	6558.2
Stddev	.6	80.	92.7
%RSD	.02026	.14626	1.4133

#1	3106.5	54962.	6492.6
#2	3107.4	54849.	6623.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0020	.00592	-0.00431	.01153	.08710	-0.00003	-0.00141	21.081	.00008
Stddev	.00022	.00027	.00069	.00020	.00086	.00001	.00037	.149	.00012
%RSD	108.64	4.6081	15.938	1.7400	.98870	24.520	26.081	.70651	155.44

#1	-0.00036	.00572	-0.00479	.01167	.08771	-0.00002	-0.00167	21.186	-0.00001
#2	-0.00005	.00611	-0.00382	.01139	.08649	-0.00003	-0.00115	20.975	.00017

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0036	.00040	-0.00101	.00509	.88562	.00704	4.5053	.00040	-0.0035
Stddev	.00030	.00006	.00004	.00152	.05291	.00029	.0154	.00001	.00061
%RSD	83.931	15.175	3.8120	29.959	5.9744	4.1001	.34106	1.7085	172.93

#1	-0.00058	.00036	-0.00104	.00401	.84821	.00725	4.4945	.00040	.00008
#2	-0.00015	.00045	-0.00098	.00617	.92303	.00684	4.5162	.00041	-0.00078

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.548	.00113	.02746	-0.00042	7.8339	-0.00193	.00288	11.100	23.754
Stddev	.169	.00076	.00333	.00098	.0449	.00158	.00327	.057	.122
%RSD	1.0881	66.869	12.120	233.69	.57385	82.209	113.53	.51279	.51279

#1	15.668	.00060	.02981	-0.00111	7.8021	-0.00305	.00519	11.140	23.840
#2	15.428	.00167	.02511	.00027	7.8657	-0.00081	.00057	11.060	23.667

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00081	.14016	.00292	.00004	-0.00280	-0.00424	.00009	.00079	-0.00032
Stddev	.00131	.00128	.00007	.00001	.00005	.01247	.00027	.00101	.00019
%RSD	161.18	.91379	2.2440	23.220	1.7668	294.00	291.60	128.27	58.863

#1	-0.00011	.14107	.00287	.00005	-0.00277	-.01306	-0.00010	.00007	-0.00019
#2	.00173	.13926	.00297	.00004	-0.00284	.00458	.00029	.00150	-0.00046

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3116.8	54412.	6523.3
Stddev	3.3	49.	25.3
%RSD	.10676	.09003	.38707

#1	3114.4	54377.	6505.4
#2	3119.1	54446.	6541.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0032	.00064	.00130	.00302	.01764	-0.0009	-0.0035	4.4556	.00006
Stddev	.00001	.00006	.00154	.00119	.00035	.00005	.00136	.0730	.00008
%RSD	2.4050	9.5831	118.98	39.312	1.9774	58.593	392.68	1.6376	134.76

#1	-0.0033	.00068	.00021	.00387	.01789	-0.0013	.00062	4.5072	.00012
#2	-0.0032	.00060	.00239	.00218	.01740	-0.0005	-.00131	4.4040	.00000

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00054	.00014	-0.00141	.00115	.17818	-0.00069	.92652	.00001	-0.0014
Stddev	.00012	.00024	.00026	.00158	.02216	.00169	.00634	.00002	.00005
%RSD	21.478	170.79	18.561	136.83	12.435	244.41	.68387	380.17	38.709

#1	.00045	-0.0003	-0.00160	.00004	.19385	-0.00189	.93100	-0.0001	-0.0010
#2	.00062	.00031	-0.00123	.00227	.16252	.00050	.92204	.00002	-0.0018

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.9424	.00057	.00840	.00034	1.6055	-0.00521	.00186	2.2178	4.7461
Stddev	.0440	.00018	.00289	.00140	.0127	.00310	.00116	.0226	.0483
%RSD	1.4936	30.901	34.409	416.25	.78789	59.476	62.593	1.0167	1.0167

#1	2.9734	.00045	.01044	-0.00065	1.5966	-0.00740	.00268	2.2338	4.7803
#2	2.9113	.00070	.00636	.00133	1.6144	-0.00302	.00104	2.2019	4.7120

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00049	.02955	.00229	-0.00013	-0.00142	-0.03019	.00041	.00008	-0.00098
Stddev	.00027	.00035	.00358	.00018	.00045	.04880	.00013	.00011	.00169
%RSD	56.555	1.1712	156.11	132.90	31.735	161.63	31.835	135.55	173.09

#1	-0.0029	.02979	.00483	-0.00026	-0.00174	-0.06470	.00051	.00016	.00022
#2	-0.0068	.02930	-0.00024	-0.00001	-0.00110	.00431	.00032	.00000	-0.00217

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3096.2	54439.	6459.5
Stddev	4.8	88.	75.8
%RSD	.15373	.16224	1.1741

#1	3099.6	54376.	6405.9
#2	3092.8	54501.	6513.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04356	1.9573	.99753	1.0470	1.9969	.04699	F 1.9885	65.802	.10187
Stddev	.00046	.0006	.00028	.0012	.0139	.00036	.0064	.495	.00036
%RSD	1.0594	.03227	.02810	.11042	.69443	.77599	.32346	.75213	.35680

#1	.04389	1.9569	.99773	1.0461	2.0067	.04724	1.9930	66.152	.10213
#2	.04323	1.9578	.99734	1.0478	1.9871	.04673	1.9839	65.452	.10162

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48373	W .19956	.24397	.99330	49.110	.97258	51.277	.49307	1.0133
Stddev	.00079	.00041	.00045	.00646	.196	.00307	.235	.00014	.0007
%RSD	.16228	.20732	.18335	.64994	.39875	.31571	.45737	.02811	.06809

#1	.48428	.19927	.24428	.99787	49.248	.97475	51.443	.49317	1.0128
#2	.48317	.19986	.24365	.98874	48.971	.97041	51.111	.49297	1.0138

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	65.913	.47814	W 10.582	.48679	9.7013	.52380	2.0382	19.997	42.793
Stddev	.874	.00157	.005	.00045	.0248	.00143	.0178	.333	.714
%RSD	1.3264	.32749	.04550	.09151	.25511	.27210	.87543	1.6677	1.6677

#1	66.531	.47703	10.579	.48711	9.7188	.52480	2.0508	20.232	43.297
#2	65.295	.47925	10.585	.48648	9.6838	.52279	2.0256	19.761	42.288

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9748	1.0911	.99291	.98603	1.9600	2.0305	.50422	.47128	.44385
Stddev	.0113	.0075	.00071	.00066	.0130	.0018	.00113	.00284	.01066
%RSD	.57064	.69109	.07176	.06743	.66193	.08712	.22407	.60302	2.4015

#1	1.9828	1.0964	.99341	.98650	1.9692	2.0318	.50502	.46927	.45139
#2	1.9668	1.0857	.99241	.98556	1.9509	2.0293	.50342	.47329	.43632

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3027.6	52992.	6499.0
Stddev	3.7	56.	34.3
%RSD	.12353	.10585	.52811

#1	3030.2	53032.	6474.8
#2	3024.9	52953.	6523.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04410	1.9782	1.0169	1.0655	2.0308	.04770	F 2.0086	66.686	.10275
Stddev	.00009	.0088	.0074	.0010	.0103	.00009	.0027	.278	.00002
%RSD	.20208	.44522	.72972	.09055	.50912	.19637	.13695	.41710	.02409

#1	.04416	1.9845	1.0221	1.0662	2.0235	.04763	2.0105	66.490	.10273
#2	.04404	1.9720	1.0116	1.0649	2.0382	.04777	2.0066	66.883	.10277

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49022	W .19823	.25094	.93395	49.743	.98589	52.493	.50385	1.0320
Stddev	.00043	.00083	.00012	.00271	.235	.00534	.037	.00017	.0024
%RSD	.08805	.41912	.04601	.29003	.47241	.54171	.07116	.03301	.23170

#1	.49053	.19882	.25102	.93203	49.577	.98211	52.519	.50397	1.0337
#2	.48992	.19764	.25086	.93586	49.910	.98966	52.466	.50373	1.0303

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	66.246	.48381	W 10.637	.48964	9.8322	.52366	2.0372	20.121	43.059
Stddev	.904	.00037	.040	.00051	.0388	.00344	.0026	.356	.761
%RSD	1.3651	.07686	.37176	.10363	.39483	.65660	.12799	1.7679	1.7679

#1	65.607	.48407	10.665	.49000	9.8597	.52609	2.0390	19.870	42.521
#2	66.886	.48354	10.609	.48928	9.8048	.52123	2.0353	20.373	43.598

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9868	1.1085	1.0187	1.0170	1.9629	2.1143	.51824	.48089	.44875
Stddev	.0046	.0060	.0009	.0016	.0013	.0328	.00184	.00176	.00358
%RSD	.23308	.54489	.09008	.15373	.06468	1.5517	.35546	.36583	.79685

#1	1.9900	1.1043	1.0180	1.0159	1.9620	2.0911	.51694	.47965	.44622
#2	1.9835	1.1128	1.0193	1.0181	1.9638	2.1375	.51954	.48213	.45128

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2981.9	51826.	6474.4
Stddev	.6	58.	55.7
%RSD	.02131	.11275	.86057

#1	2982.3	51785.	6513.8
#2	2981.4	51868.	6435.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0063	.00276	-0.00290	.00687	.08786	.00012	-0.00096	31.304	.00013
Stddev	.00003	.00008	.00178	.00013	.00060	.00002	.00081	.072	.00016
%RSD	4.9724	3.0562	61.305	1.9378	.68238	18.573	84.197	.22973	127.04

#1	-0.00060	.00270	-0.00415	.00696	.08743	.00010	-0.00154	31.253	.00024
#2	-0.00065	.00282	-0.00164	.00677	.08828	.00013	-0.00039	31.355	.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0005	.00038	-0.00084	.00290	.44094	.00560	6.6593	.00041	-0.0072
Stddev	.00015	.00015	.00014	.00021	.00337	.00089	.0434	.00005	.00006
%RSD	306.37	39.303	17.129	7.3309	.76469	15.974	.65192	11.763	8.0804

#1	-0.00016	.00049	-0.00074	.00305	.44333	.00623	6.6900	.00045	-0.00076
#2	.00006	.00028	-0.00095	.00275	.43856	.00497	6.6286	.00038	-0.00068

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.105	.00324	.00790	.00296	11.944	-0.00159	-0.00058	8.0872	17.307
Stddev	.271	.00007	.00082	.00108	.129	.00020	.00094	.1297	.278
%RSD	1.4179	2.2737	10.397	36.457	1.0811	12.348	163.38	1.6035	1.6035

#1	18.914	.00318	.00848	.00372	12.036	-0.00173	-0.00124	7.9955	17.110
#2	19.297	.00329	.00732	.00220	11.853	-0.00145	.00009	8.1789	17.503

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00134	.18582	.00241	.00017	-0.00419	-0.02637	.00033	.00150	.00212
Stddev	.00008	.00089	.00014	.00005	.00066	.03172	.00018	.00002	.00011
%RSD	6.2048	.47827	5.6258	27.124	15.688	120.28	55.322	1.1013	4.9787

#1	.00140	.18519	.00250	.00014	-0.00372	-0.00394	.00046	.00148	.00204
#2	.00128	.18644	.00231	.00021	-0.00465	-0.04880	.00020	.00151	.00219

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3235.3	57819.	7299.8
Stddev	3.0	214.	9.9
%RSD	.09411	.37040	.13583

#1	3233.2	57667.	7306.9
#2	3237.5	57970.	7292.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0047	.06436	-0.00139	.01962	.06258	.00009	-0.00197	22.637	.00011
Stddev	.00054	.00123	.00125	.00066	.00048	.00005	.00026	.149	.00001
%RSD	115.50	1.9057	89.986	3.3820	.76997	55.491	13.099	.65641	11.709

#1	-0.0009	.06349	-0.0050	.01916	.06292	.00012	-0.00215	22.742	.00010
#2	-0.0085	.06523	-0.00227	.02009	.06224	.00005	-0.00179	22.531	.00012

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0005	.00036	-0.00078	.03557	.45581	.00426	4.6479	.00031	-0.0080
Stddev	.00005	.00002	.00009	.00172	.04568	.00049	.0665	.00001	.00043
%RSD	93.959	4.6519	11.983	4.8367	10.021	11.410	1.4301	3.4273	54.010

#1	-0.0002	.00035	-0.00084	.03435	.42351	.00460	4.6009	.00030	-0.0111
#2	-0.0009	.00038	-0.00071	.03678	.48811	.00391	4.6949	.00031	-0.0050

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.967	.00197	.00888	.00152	10.246	-0.00068	.00289	7.8276	16.751
Stddev	.063	.00094	.00252	.00059	.106	.00049	.00154	.0191	.041
%RSD	.45098	47.990	28.435	38.836	1.0393	72.315	53.200	.24348	.24348

#1	13.923	.00130	.01066	.00110	10.170	-0.00033	.00180	7.8411	16.780
#2	14.012	.00264	.00709	.00194	10.321	-0.00103	.00398	7.8142	16.722

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00147	.12359	.00304	.00130	-0.00567	-0.01360	.00033	.00099	.00160
Stddev	.00073	.00082	.00164	.00022	.00073	.00229	.00025	.00018	.00016
%RSD	49.762	.66382	53.808	17.013	12.842	16.846	74.985	18.581	9.9585

#1	.00095	.12417	.00420	.00114	-0.00619	-0.01198	.00050	.00086	.00171
#2	.00198	.12301	.00188	.00146	-0.00516	-0.01522	.00015	.00112	.00149

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3244.5	58461.	7343.1
Stddev	19.8	374.	3.0
%RSD	.60879	.64039	.04113

#1	3258.5	58726.	7340.9
#2	3230.5	58196.	7345.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0019	.00389	-0.00311	.03536	.11043	.00005	.00010	92.296	.00010
Stddev	.00055	.00076	.00145	.00017	.00095	.00001	.00019	.182	.00007
%RSD	292.77	19.490	46.558	.48471	.86132	14.081	186.69	.19698	74.814

#1	-0.00058	.00443	-0.00209	.03548	.10976	.00005	.00024	92.168	.00005
#2	.00020	.00336	-.00414	.03524	.11110	.00006	-.00003	92.425	.00015

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00006	.00155	.00014	.02624	2.5088	.07607	18.580	.01024	-0.00031
Stddev	.00003	.00002	.00029	.00194	.0105	.00028	.004	.00001	.00071
%RSD	47.887	.96911	203.10	7.4093	.41688	.36192	.02423	.09253	230.12

#1	-0.00008	.00154	-0.00006	.02486	2.5014	.07626	18.577	.01024	.00019
#2	-.00004	.00156	.00035	.02761	2.5162	.07587	18.583	.01023	-.00081

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	65.494	.00263	.02697	.00454	22.090	.00080	.00685	8.5567	18.311
Stddev	.448	.00023	.00100	.00098	.101	.00022	.00122	.0030	.006
%RSD	.68353	8.8815	3.6986	21.631	.45689	27.112	17.837	.03508	.03508

#1	65.810	.00279	.02767	.00524	22.019	.00095	.00771	8.5546	18.307
#2	65.177	.00246	.02626	.00385	22.161	.00065	.00598	8.5588	18.316

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00135	.65352	.00109	.00019	-.00797	.02141	-.00047	.00159	.00291
Stddev	.00045	.00103	.00051	.00002	.00145	.01252	.00024	.00015	.00197
%RSD	33.351	.15799	46.575	9.8343	18.214	58.493	50.975	9.5493	67.635

#1	.00167	.65279	.00145	.00018	-.00900	.01255	-.00030	.00169	.00430
#2	.00103	.65425	.00073	.00021	-.00694	.03026	-.00064	.00148	.00152

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3165.9	56929.	7303.7
Stddev	12.6	196.	76.0
%RSD	.39807	.34474	1.0408

#1	3174.8	57068.	7357.4
#2	3157.0	56790.	7249.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0011	.00429	-0.00209	.12048	.08026	-0.00001	.00004	99.542	.00007
Stddev	.00056	.00037	.00061	.00139	.00046	.00014	.00191	.674	.00012
%RSD	515.93	8.5320	29.035	1.1536	.56783	1064.4	4535.9	.67673	177.70

#1	-0.00050	.00455	-.00251	.12146	.08058	-.00011	-.00131	100.02	-.00002
#2	.00029	.00403	-.00166	.11950	.07993	.00009	.00139	99.066	.00015

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0012	.00027	.00101	.00646	3.2530	.23912	30.169	.03230	-0.0144
Stddev	.00033	.00008	.00028	.00077	.0105	.00109	.200	.00016	.00032
%RSD	272.70	28.951	27.242	11.840	.32351	.45439	.66400	.48319	22.437

#1	.00011	.00022	.00082	.00592	3.2455	.23988	30.311	.03219	-.00121
#2	-.00036	.00033	.00120	.00701	3.2604	.23835	30.027	.03241	-.00167

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	190.49	.00520	.01282	.00320	56.902	.00008	.00160	6.8442	14.647
Stddev	1.20	.00016	.00289	.00006	.062	.00004	.00031	.0394	.084
%RSD	.62788	3.0747	22.565	1.8841	.10834	48.705	19.540	.57560	.57560

#1	191.34	.00509	.01487	.00325	56.859	.00011	.00182	6.8721	14.706
#2	189.65	.00531	.01078	.00316	56.946	.00005	.00138	6.8164	14.587

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00225	1.0327	.00088	.00000	-.00635	.00739	-.00111	.00475	.00241
Stddev	.00060	.0064	.00189	.00010	.00260	.00938	.00004	.00029	.00122
%RSD	26.667	.62383	214.59	3109.3	40.965	126.91	3.2075	6.0602	50.768

#1	.00183	1.0372	.00222	-.00007	-.00819	.01402	-.00108	.00495	.00154
#2	.00267	1.0281	-.00046	.00008	-.00451	.00076	-.00113	.00455	.00327

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3008.7	55042.	7144.7
Stddev	12.7	173.	45.4
%RSD	.42085	.31398	.63480

#1	2999.8	55165.	7112.6
#2	3017.7	54920.	7176.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0008	.00296	.00151	.05986	.03499	-0.0004	.00112	193.13	-0.0022
Stddev	.00043	.00002	.00521	.00055	.00063	.00001	.00245	2.89	.00011
%RSD	540.52	.74352	346.02	.91609	1.7898	23.154	219.38	1.4943	52.138

#1	.00022	.00294	-.00218	.05948	.03455	-.00004	.00285	191.09	-.00014
#2	-.00038	.00297	.00519	.06025	.03543	-.00003	-.00062	195.17	-.00030

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0013	.00085	.00145	.01492	3.9354	.25791	51.771	.00991	.00237
Stddev	.00034	.00024	.00042	.00187	.0364	.00533	.092	.00017	.00031
%RSD	258.31	28.330	29.101	12.538	.92557	2.0677	.17686	1.6771	13.111

#1	-.00037	.00102	.00115	.01359	3.9097	.25414	51.706	.01003	.00215
#2	.00011	.00068	.00174	.01624	3.9612	.26168	51.836	.00980	.00259

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	153.90	.00460	.01392	.00288	167.00	.00072	.36690	8.0972	17.328
Stddev	2.39	.00022	.00232	.00105	1.14	.00047	.00932	.1542	.330
%RSD	1.5530	4.6858	16.638	36.291	.68252	65.731	2.5391	1.9045	1.9045

#1	152.21	.00445	.01556	.00214	166.19	.00106	.36031	7.9882	17.095
#2	155.59	.00475	.01228	.00362	167.80	.00039	.37349	8.2062	17.561

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00032	1.7958	.00292	-.00016	-.00785	.07333	-.00070	.00157	.00219
Stddev	.00081	.0287	.00068	.00041	.00265	.03147	.00048	.00039	.00101
%RSD	253.68	1.5983	23.283	259.55	33.770	42.916	68.893	24.473	45.831

#1	.00089	1.7755	.00340	-.00044	-.00598	.05108	-.00104	.00185	.00148
#2	-.00025	1.8161	.00244	.00013	-.00973	.09559	-.00036	.00130	.00290

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3018.9	53510.	6681.5
Stddev	7.6	219.	35.0
%RSD	.25283	.40882	.52378

#1	3013.5	53664.	6706.2
#2	3024.3	53355.	6656.7

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00748	48.538	-0.00307	.00070	.00061	.00007	1.0405	.05154	-.00023	-.00005	.00100
Stddev	.00015	.017	.00453	.00065	.00025	.00002	.0022	.00546	.00020	.00000	.00020
%RSD	1.9707	.03501	147.65	93.133	40.686	37.041	.20926	10.589	87.452	6.8388	19.640

#1	-0.00737	48.526	-.00627	.00117	.00044	.00005	1.0420	.05540	-.00036	-.00005	.00086
#2	-.00758	48.550	.00014	.00024	.00079	.00008	1.0389	.04768	-.00009	-.00005	.00113

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00101	48.055	.05917	-.00086	.05285	-.00168	-.00043	245.82	.00182	.00688	.00020
Stddev	.00040	.567	.00863	.00049	.00344	.00007	.00003	.01	.00007	.00158	.00015
%RSD	39.552	1.1807	14.590	56.760	6.5028	4.2714	7.4688	.00240	3.8915	22.928	75.668

#1	-0.00129	48.456	.06528	-.00121	.05042	-.00163	-.00041	245.81	.00188	.00577	.00031
#2	-.00073	47.654	.05307	-.00052	.05528	-.00173	-.00045	245.82	.00177	.00800	.00009

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.0908	-.01241	.00720	-.05167	-.11057	-.00027	.00058	4.9612	-.01182	.00107	W 10.574
Stddev	.0017	.00099	.00041	.02219	.04748	.00014	.00009	.0053	.00027	.00059	.001
%RSD	.03383	7.9610	5.6896	42.940	42.940	52.482	15.674	.10681	2.2561	54.671	.00642

#1	5.0895	-.01171	.00749	-.03598	-.07700	-.00017	.00064	4.9649	-.01163	.00066	10.574
#2	5.0920	-.01311	.00691	-.06736	-.14415	-.00036	.00051	4.9574	-.01201	.00149	10.574

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value											10.000
Range											5.00000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00278	-.00052	-.13027
Stddev	.00027	.00062	.00043
%RSD	9.8532	120.48	.32916

#1	.00298	-.00008	-.13057
#2	.00259	-.00096	-.12996

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3062.5	53478.	6645.7
Stddev	2.0	134.	55.7
%RSD	.06468	.25110	.83789

#1	3061.1	53573.	6606.3
#2	3063.9	53383.	6685.1

Sample Name: CCV-3296664 Acquired: 5/30/2015 21:40:04 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49601	.54265	1.0133	.53295	.48805	.47631	-.00260	4.7892	.51840	.51251	.52524	.50251	2.3913
Stddev	.00014	.00274	.0039	.00186	.00769	.00662	.00031	.0604	.00022	.00200	.00204	.00018	.0211
%RSD	.02762	.50557	.38904	.34854	1.5764	1.3904	11.767	1.2603	.04232	.38928	.38766	.03591	.88411

#1	.49591	.54459	1.0105	.53164	.48261	.47163	-.00282	4.7465	.51855	.51392	.52668	.50239	2.3764
#2	.49611	.54071	1.0161	.53427	.49349	.48099	-.00239	4.8319	.51824	.51110	.52380	.50264	2.4063

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.476	.97993	19.417	.50175	.50260	5.1039	.50506	1.0606	1.0075	.02006	1.0500	1.0258	4.7010
Stddev	.862	.02107	.080	.00339	.00296	.0694	.00343	.0108	.0068	.00804	.0073	.0012	.0517
%RSD	1.7774	2.1502	.41134	.67654	.58906	1.3600	.67863	1.0175	.67534	40.076	.69553	.11396	1.1005

#1	47.867	.96503	19.473	.50416	.50470	5.0548	.50748	1.0682	1.0123	.02575	1.0551	1.0267	4.6644
#2	49.085	.99483	19.360	.49935	.50051	5.1530	.50263	1.0530	1.0026	.01438	1.0448	1.0250	4.7375

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.060	1.0109	.48709	.00123	.50115	1.0380	-.03062	.51423	.48601	.47607
Stddev	.111	.0039	.00732	.00003	.00315	.0047	.00181	.00348	.00499	.00369
%RSD	1.1005	.38306	1.5021	2.1541	.62864	.45430	5.9032	.67691	1.0267	.77504

#1	9.9818	1.0136	.48191	.00122	.50338	1.0413	-.03190	.51669	.48954	.47347
#2	10.138	1.0082	.49226	.00125	.49892	1.0347	-.02934	.51177	.48248	.47868

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3082.5	53839.	6590.1
Stddev	3.5	476.	101.9
%RSD	.11367	.88379	1.5466

#1	3080.0	53503.	6662.2
#2	3085.0	54176.	6518.1

Sample Name: CCB Acquired: 5/30/2015 21:42:32 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.00074	-.00105	.00160	.00012	.00002	.00141	.00063	-.00019	.00009	-.00004	-.00101	.00249
Stddev	.00064	.00011	.00219	.00036	.00036	.00010	.00053	.00002	.00006	.00031	.00012	.00033	.00083
%RSD	633.18	14.166	207.95	22.742	307.02	529.02	37.638	3.2133	32.261	337.85	321.01	32.662	33.358
#1	.00055	.00067	.00050	.00134	.00037	.00009	.00179	.00065	-.00015	-.00013	.00005	-.00125	.00308
#2	-.00035	.00082	-.00260	.00186	-.00014	-.00005	.00104	.00062	-.00023	.00031	-.00013	-.00078	.00191

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00037	-.00231	.00040	.00003	.00015	.11588	.00006	.00056	-.00026	.01571	-.00290	.00186	-.01658
Stddev	.03527	.00093	.01013	.00013	.00035	.00578	.00036	.00074	.00047	.00213	.00067	.00058	.00688
%RSD	9411.0	40.418	2518.7	522.93	240.25	4.9905	639.13	132.02	179.10	13.569	23.150	31.149	41.483
#1	-.02456	-.00165	-.00676	-.00007	.00039	.11997	.00031	.00108	.00007	.01420	-.00243	.00227	-.01172
#2	.02531	-.00297	.00757	.00012	-.00010	.11179	-.00020	.00004	-.00059	.01721	-.00338	.00145	-.02144

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.03548	.00079	.00015	.00226	.00045	-.00118	-.01730	-.00024	.00023	.00062
Stddev	.01472	.00093	.00001	.00177	.00020	.00322	.00078	.00011	.00041	.00124
%RSD	41.483	117.61	10.184	78.387	45.141	273.35	4.4997	45.718	177.83	199.65
#1	-.02507	.00013	.00016	.00351	.00060	.00110	-.01785	-.00016	.00052	-.00026
#2	-.04589	.00145	.00014	.00101	.00031	-.00346	-.01675	-.00031	-.00006	.00149

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3103.5	54720.	6551.6
Stddev	5.5	165.	91.6
%RSD	.17670	.30123	1.3982
#1	3099.6	54604.	6616.4
#2	3107.4	54837.	6486.8

Sample Name: CCVL330103200 Acquired: 5/30/2015 21:44:55 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00921	.10825	.01794	.10634	.00991	.00095	.10537	.20193	.00516	.01035	.01086	.01483	.09717	3.0492
Stddev	.00014	.00002	.00503	.00005	.00035	.00011	.00371	.00357	.00014	.00014	.00037	.00011	.00186	.0093
%RSD	1.5642	.01883	28.018	.04374	3.5668	11.103	3.5209	1.7666	2.7560	1.3889	3.4134	.76677	1.9109	.30360

#1	.00911	.10823	.02149	.10631	.01016	.00088	.10799	.19941	.00506	.01025	.01112	.01491	.09585	3.0557
#2	.00931	.10826	.01438	.10638	.00966	.00103	.10274	.20446	.00526	.01046	.01060	.01475	.09848	3.0426

Check ?	Chk Pass													
Value														
Range														

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00896	.20555	.01041	.01963	1.1316	.04115	3.0673	.00829	.01839	.00833	.01555	.45350	.97049	.10477
Stddev	.00156	.00427	.00017	.00004	.0087	.00021	.0020	.00074	.00193	.00303	.00008	.01581	.03382	.00136
%RSD	17.407	2.0784	1.6655	.18669	.76990	.51483	.06648	8.9125	10.479	36.351	.54331	3.4853	3.4853	1.2997

#1	.00786	.20253	.01029	.01961	1.1255	.04100	3.0687	.00881	.01702	.01047	.01561	.44232	.94657	.10381
#2	.01006	.20857	.01053	.01966	1.1378	.04130	3.0658	.00776	.01975	.00619	.01549	.46468	.99441	.10573

Check ?	Chk Pass	None	Chk Pass											
Value														
Range														

Elem	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01017	.01692	.01037	.01579	.04834	.01040	.02157	.01475
Stddev	.00009	.00004	.00021	.00247	.00531	.00027	.00002	.00032
%RSD	.84396	.21910	2.0219	15.646	10.994	2.5600	.09028	2.1602

#1	.01011	.01694	.01051	.01404	.04458	.01021	.02156	.01453
#2	.01023	.01689	.01022	.01754	.05210	.01059	.02159	.01498

Check ?	Chk Pass							
Value								
Range								

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3120.3	54747.	6561.4
Stddev	14.5	391.	8.9
%RSD	.46408	.71442	.13622

#1	3130.6	55023.	6567.8
#2	3110.1	54470.	6555.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00005	.00259	-0.00035	.00138	-0.00014	.00002	-0.00284	.01750	-0.00002
Stddev	.00011	.00043	.00370	.00009	.00013	.00014	.00193	.00100	.00014
%RSD	230.30	16.726	1055.4	6.4546	93.309	593.31	67.895	5.7285	588.60

#1	.00012	.00228	-0.00297	.00131	-0.00005	-0.00007	-0.00148	.01820	.00007
#2	-0.00003	.00289	.00226	.00144	-0.00023	.00012	-0.00421	.01679	-0.00012

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00007	-0.00027	W .01121	.00532	-0.00353	-0.00240	.00063	.00015	.00021
Stddev	.00014	.00005	.00032	.00121	.01311	.00099	.00178	.00008	.00008
%RSD	214.74	20.465	2.8212	22.811	370.96	41.263	280.96	57.190	39.699

#1	-0.00017	-0.00023	.01099	.00446	-0.01281	-0.00310	-0.00063	.00009	.00026
#2	.00003	-0.00031	.01144	.00618	.00574	-0.00170	.00190	.00020	.00015

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.00750						
Low Limit			-.00750						

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08451	-0.00020	.00267	-0.00059	.01551	-0.00015	.00413	-0.02481	-0.05310
Stddev	.00621	.00002	.00108	.00288	.00151	.00304	.00019	.00299	.00640
%RSD	7.3455	8.3700	40.245	488.67	9.7183	2025.9	4.5952	12.046	12.046

#1	.08890	-0.00021	.00343	-0.00262	.01445	-0.00230	.00400	-.02270	-.04858
#2	.08012	-0.00019	.00191	.00144	.01658	.00200	.00426	-.02693	-.05763

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00104	.00008	.00217	.00007	.00054	-0.02990	.00010	.00217	.00204
Stddev	.00137	.00008	.00028	.00022	.00129	.01494	.00068	.00023	.00194
%RSD	131.28	101.19	12.985	294.89	238.01	49.959	667.73	10.627	94.999

#1	.00007	.00002	.00237	.00023	.00146	-.01934	-0.00038	.00233	.00067
#2	.00201	.00014	.00197	-0.00008	-0.00037	-.04046	.00058	.00201	.00342

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3151.0	55648.	6707.8
Stddev	4.9	180.	12.5
%RSD	.15402	.32326	.18679

#1	3147.5	55776.	6716.6
#2	3154.4	55521.	6698.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04532	2.0376	1.0415	1.0983	1.9975	.04875	2.0963	47.512	.10634
Stddev	.00012	.0072	.0051	.0075	.0225	.00111	.0105	.528	.00030
%RSD	.27047	.35151	.48652	.68436	1.1281	2.2751	.50061	1.1115	.28182

#1	.04523	2.0427	1.0451	1.1036	1.9815	.04796	2.1037	47.139	.10656
#2	.04540	2.0326	1.0379	1.0929	2.0134	.04953	2.0889	47.886	.10613

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50593	F .20619	.25552	.95590	50.106	1.0083	48.784	.50522	1.0614
Stddev	.00003	.00021	.00126	.02686	.580	.0109	.113	.00008	.0029
%RSD	.00519	.09986	.49307	2.8097	1.1574	1.0842	.23134	.01538	.27340

#1	.50595	.20634	.25463	.93691	49.696	1.0006	48.704	.50528	1.0635
#2	.50591	.20604	.25641	.97489	50.516	1.0161	48.863	.50517	1.0594

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	53.818	.49870	10.943	.50897	2.1671	F .55588	2.1766	9.7349	20.833
Stddev	.507	.00101	.130	.00007	.0093	.00331	.0014	.1446	.309
%RSD	.94184	.20276	1.1919	.01295	.42855	.59631	.06547	1.4850	1.4850

#1	53.460	.49942	11.035	.50893	2.1737	.55822	2.1756	9.6327	20.614
#2	54.177	.49799	10.850	.50902	2.1606	.55354	2.1776	9.8372	21.052

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Fail	Chk Pass	Chk Pass	None
High Limit						.55499			
Low Limit						.44000			

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0821	.99824	1.0233	1.0228	2.0991	2.0796	.51760	.48001	.46396
Stddev	.0040	.01124	.0014	.0016	.0012	.0104	.00056	.00021	.00566
%RSD	.19071	1.1262	.14137	.15768	.05502	.49889	.10796	.04307	1.2209

#1	2.0793	.99029	1.0223	1.0217	2.0983	2.0722	.51720	.48016	.45995
#2	2.0849	1.0062	1.0244	1.0240	2.1000	2.0869	.51799	.47987	.46796

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3033.4	53440.	6613.4
Stddev	2.9	163.	44.4
%RSD	.09580	.30413	.67078

#1	3031.4	53325.	6644.8
#2	3035.5	53555.	6582.0

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00188	2.1889	3.3513	.01061	.00634	1.6183	.02464	-.02674	111.83
Stddev	.00020	.0014	.0118	.00061	.00049	.0076	.00027	.00513	.54
%RSD	10.494	.06557	.35256	5.7509	7.7851	.47050	1.0997	19.176	.48545

#1	.00174	2.1899	3.3429	.01018	.00599	1.6129	.02445	-.02311	111.45
#2	.00202	2.1879	3.3597	.01104	.00668	1.6237	.02483	-.03036	112.22

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00095	.02743	.00487	.04590	W 1085.0	2.5450	.01998	40.722	4.3903
Stddev	.00002	.00017	.00050	.00090	5.1	.0154	.00020	.113	.0219
%RSD	1.7402	.63387	10.317	1.9661	.47354	.60376	.97924	.27793	.49782

#1	.00094	.02756	.00523	.04526	1081.4	2.5341	.02012	40.642	4.3749
#2	.00096	.02731	.00452	.04653	1088.7	2.5559	.01984	40.802	4.4058

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					500.00				
Low Limit					40.000				

Elem	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00368	4.6016	.08795	W 4.5241	.01687	11.553	F -.10507	.02070	W 62.292
Stddev	.00035	.0112	.00074	.0408	.00083	.099	.00278	.00296	.250
%RSD	9.4356	.24437	.83759	.90245	4.9011	.85668	2.6496	14.304	.40165

#1	-.00344	4.5937	.08847	4.5529	.01746	11.623	-.10704	.02280	62.115
#2	-.00393	4.6096	.08743	4.4952	.01629	11.483	-.10310	.01861	62.469

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Warn
High Limit				2.0000			50.000		50.000
Low Limit				-1.0000			-.02000		-1.0000

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	133.31	.01116	.30831	.11962	.10556	-.00025	F -.75700	.00589	.05586
Stddev	.54	.00053	.00118	.00425	.00121	.00087	.02289	.00007	.00161
%RSD	.40165	4.7584	.38391	3.5552	1.1448	350.01	3.0244	1.1674	2.8854

#1	132.93	.01078	.30748	.11661	.10471	-.00086	-.74081	.00584	.05472
#2	133.68	.01154	.30915	.12263	.10642	.00037	-.77319	.00594	.05700

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							50.000		
Low Limit							-.10000		

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	-.00646
Stddev	.00102
%RSD	15.779

#1	-.00574
#2	-.00718

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69723-D-1-E Acquired: 5/30/2015 21:52:24 Type: Unk

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment: 279392 6010B

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	3002.2	53074.	6736.7
Stddev	3.9	118.	45.5
%RSD	.12979	.22287	.67486
#1	3004.9	53157.	6768.9
#2	2999.4	52990.	6704.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00039	.53508	.00370	.00307	.33611	.00516	-.00701	23.670	.00009
Stddev	.00023	.00423	.00210	.00075	.00076	.00002	.00090	.138	.00009
%RSD	58.287	.79049	56.649	24.441	.22701	.40530	12.806	.58493	100.74

#1	.00023	.53807	.00519	.00360	.33557	.00517	-.00765	23.572	.00015
#2	.00055	.53209	.00222	.00254	.33664	.00514	-.00638	23.768	.00003

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00577	.00100	.00900	231.99	.46821	.00283	8.9238	.93013	-.00113
Stddev	.00017	.00018	.00013	.89	.00696	.00091	.0052	.00179	.00013
%RSD	2.9965	17.907	1.4104	.38170	1.4857	32.308	.05874	.19226	11.951

#1	.00564	.00112	.00909	231.37	.46329	.00347	8.9275	.92887	-.00103
#2	.00589	.00087	.00891	232.62	.47313	.00218	8.9201	.93140	-.00122

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.95489	.02005	.93217	.00622	2.3740	F -.02379	.00216	13.329	28.523
Stddev	.00246	.00014	.00074	.00077	.0177	.00159	.00564	.084	.179
%RSD	.25769	.67627	.07960	12.380	.74770	6.6962	261.75	.62858	.62858

#1	.95663	.02014	.93164	.00676	2.3615	-.02492	-.00183	13.269	28.397
#2	.95315	.01995	.93269	.00567	2.3866	-.02267	.00615	13.388	28.650

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass				
High Limit						50.000			
Low Limit						-.02000			

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00187	.06605	.03092	.02197	.00012	F -.17456	.00107	.01269	-.00037
Stddev	.00042	.00016	.00157	.00003	.00297	.00564	.00025	.00059	.00203
%RSD	22.614	.24489	5.0813	.12126	2469.6	3.2298	23.689	4.6198	541.92

#1	.00157	.06593	.02981	.02195	.00222	-.17855	.00125	.01311	.00106
#2	.00217	.06616	.03204	.02199	-.00198	-.17058	.00089	.01228	-.00181

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass				
High Limit						50.000			
Low Limit						-.10000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3106.5	54077.	6574.3
Stddev	4.2	5.	66.7
%RSD	.13625	.00944	1.0140

#1	3103.5	54081.	6621.4
#2	3109.5	54073.	6527.1

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04813	12.744	1.0479	1.0393	3.6510	.07283	F 2.0811	161.88	.10909
Stddev	.00075	.176	.0122	.0038	.0495	.00125	.0185	1.92	.00054
%RSD	1.5664	1.3829	1.1622	.36656	1.3561	1.7106	.88877	1.1832	.49670

#1	.04866	12.619	1.0565	1.0420	3.6160	.07195	2.0941	160.53	.10948
#2	.04759	12.868	1.0393	1.0366	3.6861	.07371	2.0680	163.24	.10871

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52032	W .20224	.31239	W 1117.5	53.417	1.0353	90.532	4.9128	1.0351
Stddev	.00173	.00080	.00071	15.1	.596	.0125	.150	.0061	.0033
%RSD	.33242	.39767	.22591	1.3479	1.1153	1.2067	.16570	.12353	.31577

#1	.52154	.20281	.31189	1106.8	52.995	1.0265	90.426	4.9085	1.0374
#2	.51909	.20167	.31289	1128.2	53.838	1.0441	90.638	4.9171	1.0328

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass				
High Limit		.10000		500.00					
Low Limit		-.01000		40.000					

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	58.802	.56868	W 15.069	.49485	14.079	.40822	2.0984	W 75.071	160.65
Stddev	.720	.00188	.047	.00854	.117	.00632	.0048	.865	1.85
%RSD	1.2239	.33002	.30922	1.7262	.82810	1.5490	.22781	1.1523	1.1523

#1	58.294	.57001	15.102	.50089	14.161	.41269	2.1018	74.459	159.34
#2	59.311	.56736	15.036	.48881	13.996	.40375	2.0950	75.682	161.96

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit			2.0000					50.000	
Low Limit			-1.0000					-.10000	

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9669	1.3063	1.1167	1.1074	1.8774	1.3815	.52053	.51953	.47309
Stddev	.0191	.0182	.0085	.0017	.0084	.0081	.00025	.00389	.00969
%RSD	.97003	1.3918	.76301	.15452	.44713	.58744	.04786	.74946	2.0479

#1	1.9804	1.2935	1.1227	1.1062	1.8833	1.3757	.52035	.51677	.46624
#2	1.9534	1.3192	1.1107	1.1086	1.8714	1.3872	.52071	.52228	.47994

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2930.7	51801.	6592.6
Stddev	5.4	141.	37.8
%RSD	.18510	.27163	.57358

#1	2934.5	51900.	6619.3
#2	2926.8	51701.	6565.9

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04856	12.524	1.0504	1.0411	3.7075	.07390	F 2.0869	163.33	.10949
Stddev	.00068	.189	.0056	.0033	.0470	.00103	.0018	2.32	.00020
%RSD	1.4021	1.5075	.53304	.32063	1.2685	1.3919	.08820	1.4219	.17973

#1	.04808	12.657	1.0465	1.0435	3.7407	.07462	2.0882	164.97	.10963
#2	.04904	12.390	1.0544	1.0388	3.6742	.07317	2.0856	161.69	.10935

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52105	W .20329	.31431	W 1121.1	54.581	1.0599	90.750	4.7914	1.0389
Stddev	.00017	.00027	.00009	15.3	.640	.0165	.092	.0066	.0002
%RSD	.03173	.13168	.02882	1.3641	1.1724	1.5604	.10181	.13791	.02301

#1	.52094	.20310	.31437	1131.9	55.033	1.0716	90.815	4.7867	1.0387
#2	.52117	.20348	.31424	1110.3	54.128	1.0482	90.684	4.7961	1.0391

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass				
High Limit		.10000		500.00					
Low Limit		-.01000		40.000					

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	60.204	.56946	W 15.000	.49568	13.892	.41059	2.1324	W 79.616	170.38
Stddev	.258	.00055	.040	.00086	.001	.00439	.0100	1.299	2.78
%RSD	.42897	.09695	.26980	.17412	.00442	1.0701	.47037	1.6311	1.6311

#1	60.387	.56907	15.029	.49629	13.891	.40749	2.1253	80.535	172.34
#2	60.022	.56985	14.972	.49507	13.892	.41370	2.1395	78.698	168.41

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit			2.0000					50.000	
Low Limit			-1.0000					-.10000	

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9981	1.3330	1.1293	1.1102	1.9188	1.4435	.52508	.52682	.48074
Stddev	.0202	.0169	.0117	.0007	.0149	.0131	.00032	.00010	.01072
%RSD	1.0113	1.2673	1.0353	.05981	.77558	.90781	.06034	.01959	2.2302

#1	1.9838	1.3449	1.1211	1.1107	1.9083	1.4342	.52531	.52689	.48832
#2	2.0124	1.3210	1.1376	1.1097	1.9293	1.4527	.52486	.52674	.47316

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2921.6	51208.	6479.0
Stddev	1.4	192.	55.7
%RSD	.04886	.37434	.85965

#1	2920.6	51344.	6439.7
#2	2922.6	51073.	6518.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0022	.04902	-0.00011	.01980	.02676	-0.00004	-0.00006	50.164	.00018
Stddev	.00010	.00210	.00329	.00015	.00021	.00005	.00197	.029	.00012
%RSD	45.418	4.2841	3031.1	.73312	.79248	145.46	3402.5	.05803	65.055

#1	-0.00030	.05051	-0.00243	.01990	.02661	.00000	-0.00145	50.185	.00026
#2	-0.00015	.04754	.00222	.01970	.02691	-0.00007	.00134	50.144	.00010

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00376	.00053	-0.00017	.30903	1.3792	.03915	23.354	.73619	-0.0133
Stddev	.00026	.00032	.00002	.00069	.0309	.00057	.004	.00029	.00020
%RSD	7.0256	60.231	9.6584	.22262	2.2423	1.4544	.01716	.03873	15.448

#1	.00357	.00031	-0.00016	.30855	1.3574	.03875	23.357	.73639	-0.0118
#2	.00395	.00076	-0.00018	.30952	1.4011	.03955	23.351	.73599	-0.0147

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.6224	.00785	.04007	.00383	13.207	-0.00364	.00515	5.5784	11.938
Stddev	.0081	.00003	.00086	.00051	.045	.00065	.00090	.1056	.226
%RSD	.14396	.32151	2.1468	13.182	.34191	17.957	17.513	1.8928	1.8928

#1	5.6282	.00786	.04067	.00419	13.175	-0.00410	.00578	5.5038	11.778
#2	5.6167	.00783	.03946	.00348	13.239	-0.00318	.00451	5.6531	12.098

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00028	.06423	.00113	.00057	-0.0622	-0.04189	-0.00034	.00124	.00093
Stddev	.00024	.00081	.00026	.00012	.00045	.00970	.00020	.00034	.00153
%RSD	85.214	1.2533	22.690	21.896	7.2908	23.159	59.557	27.056	163.87

#1	-0.00011	.06366	.00131	.00066	-0.0654	-0.03503	-0.00020	.00148	-0.0015
#2	-0.00045	.06480	.00095	.00048	-0.0590	-0.04875	-0.00048	.00100	.00202

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3279.2	57028.	6850.7
Stddev	3.6	44.	29.4
%RSD	.10863	.07729	.42935

#1	3276.6	56997.	6871.5
#2	3281.7	57060.	6829.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00045	.02867	.00080	.03043	.06609	.00005	.00119	91.159	-.00007
Stddev	.00003	.00188	.00229	.00026	.00001	.00002	.00186	.154	.00015
%RSD	6.7416	6.5600	286.25	.86752	.02116	29.267	155.70	.16850	207.04

#1	.00047	.03000	-.00082	.03025	.06608	.00004	-.00012	91.051	.00003
#2	.00043	.02734	.00242	.03062	.06610	.00006	.00251	91.268	-.00017

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00013	.00063	-.00011	8.2021	3.6360	.07083	21.748	.04899	-.00169
Stddev	.00033	.00003	.00064	.0420	.0122	.00029	.081	.00104	.00012
%RSD	255.23	5.3781	575.28	.51187	.33542	.40973	.37224	2.1141	7.0777

#1	.00036	.00066	-.00056	8.1724	3.6274	.07104	21.805	.04972	-.00161
#2	-.00010	.00061	.00034	8.2318	3.6446	.07063	21.690	.04826	-.00177

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 {57}	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.047	11.245	.00363	.01297	.00247	24.742	-.00224	.00488	4.0637
Stddev	.032	.227	.00046	.00107	.00093	.290	.00088	.00005	.0361
%RSD	.31720	2.0160	12.573	8.2640	37.439	1.1728	39.390	.92441	.88729

#1	10.025	11.085	.00331	.01373	.00182	24.947	-.00286	.00485	4.0382
#2	10.070	11.405	.00395	.01221	.00313	24.536	-.00162	.00491	4.0892

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.6964	.00068	.11842	.00396	.00082	-.00710	-.01987	.00005	.00029
Stddev	.0772	.00055	.00055	.00170	.00018	.00038	.00348	.00003	.00056
%RSD	.88729	81.077	.46039	42.829	21.382	5.4211	17.530	50.634	190.94

#1	8.6418	.00107	.11804	.00516	.00095	-.00683	-.02233	.00007	.00069
#2	8.7509	.00029	.11881	.00276	.00070	-.00737	-.01741	.00004	-.00010

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 {99}
Units	ppm
Avg	.00099
Stddev	.00264
%RSD	266.66

#1	.00286
#2	-.00088

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69723-D-3-C Acquired: 5/30/2015 22:07:03 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: broanderl Prep Date: Custom ID2: Custom ID3:
Comment: 279392 6010B

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	3118.3	54648.	6591.7
Stddev	16.0	8.	18.8
%RSD	.51393	.01485	.28486
#1	3129.7	54654.	6605.0
#2	3107.0	54643.	6578.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00014	.00126	-.00323	.03265	.06858	-.00012	.00085	110.64	-.00008
Stddev	.00035	.00035	.00422	.00053	.00155	.00002	.00179	1.71	.00009
%RSD	250.40	27.803	130.70	1.6268	2.2666	14.909	210.59	1.5493	116.39

#1	-.00011	.00101	-.00622	.03227	.06968	-.00014	-.00042	111.85	-.00001
#2	.00039	.00150	-.00024	.03302	.06748	-.00011	.00212	109.43	-.00015

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00023	.00063	-.00031	1.9556	4.2688	.06996	23.657	.03602	-.00226
Stddev	.00005	.00009	.00013	.0978	.0883	.00031	.068	.00009	.00021
%RSD	20.156	13.522	41.935	5.0030	2.0676	.44425	.28890	.24066	9.5041

#1	.00027	.00069	-.00022	2.0248	4.3312	.06974	23.609	.03596	-.00211
#2	.00020	.00057	-.00040	1.8864	4.2064	.07018	23.705	.03608	-.00241

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 {57}	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.9922	11.217	.00295	.00163	.00437	31.385	-.00005	-.00045	3.9662
Stddev	.1520	.289	.00038	.00078	.00178	.164	.00137	.00017	.0203
%RSD	1.5207	2.5775	12.691	47.737	40.671	.52238	2503.8	37.911	.51250

#1	10.100	11.421	.00322	.00217	.00563	31.269	.00091	-.00057	3.9806
#2	9.8847	11.012	.00269	.00108	.00312	31.501	-.00102	-.00033	3.9519

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.4877	.00109	.12524	.00248	.00005	-.00966	-.04902	-.00079	.00132
Stddev	.0435	.00207	.00217	.00268	.00003	.00078	.01702	.00002	.00011
%RSD	.51250	190.00	1.7331	108.04	64.341	8.1143	34.722	3.1479	8.5114

#1	8.5185	.00255	.12677	.00059	.00003	-.01022	-.03699	-.00077	.00140
#2	8.4570	-.00037	.12370	.00438	.00007	-.00911	-.06106	-.00080	.00124

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 {99}
Units	ppm
Avg	.00054
Stddev	.00145
%RSD	268.35

#1	.00157
#2	-.00049

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69723-D-4-C Acquired: 5/30/2015 22:09:41 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: broanderl Prep Date: Custom ID2: Custom ID3:
Comment: 279392 6010B

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	3084.8	54188.	6497.4
Stddev	27.8	224.	108.2
%RSD	.90210	.41375	1.6654
#1	3104.4	54347.	6420.9
#2	3065.1	54030.	6573.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0022	.00133	-0.00259	.02477	.03848	-0.00005	.00058	74.218	-0.00007
Stddev	.00031	.00025	.00358	.00078	.00017	.00003	.00013	.088	.00006
%RSD	139.88	18.624	138.29	3.1314	.45348	64.199	22.236	.11807	93.865

#1	-0.0045	.00115	-0.0006	.02532	.03860	-0.0003	.00049	74.280	-0.0002
#2	.00000	.00150	-.00511	.02422	.03835	-0.00007	.00068	74.156	-0.0011

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.00069	-0.00050	.23155	2.3938	.05781	33.690	.01459	-0.0189
Stddev	.00037	.00011	.00027	.00337	.0337	.00108	.060	.00011	.00035
%RSD	862.74	15.320	54.635	1.4541	1.4087	1.8605	.17938	.74158	18.257

#1	.00030	.00077	-0.00069	.22917	2.3699	.05857	33.647	.01451	-0.0214
#2	-0.00022	.00062	-0.00031	.23393	2.4176	.05705	33.733	.01466	-0.0165

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.4316	.00285	.00350	.00401	29.226	-0.00167	.00126	3.7968	8.1251
Stddev	.0082	.00026	.00068	.00182	.058	.00319	.00072	.0195	.0418
%RSD	.11012	9.2051	19.354	45.397	.19711	190.55	56.823	.51465	.51465

#1	7.4258	.00267	.00398	.00530	29.267	-0.00393	.00177	3.7830	8.0956
#2	7.4374	.00304	.00302	.00272	29.185	.00058	.00076	3.8106	8.1547

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00155	.07938	.00129	.00024	-0.00720	-0.03895	-0.00025	.00016	.00096
Stddev	.00024	.00042	.00057	.00007	.00028	.01688	.00009	.00047	.00086
%RSD	15.587	.52722	44.357	27.461	3.8289	43.338	37.815	289.93	89.653

#1	.00138	.07908	.00169	.00019	-0.00740	-0.02701	-0.00018	-.00017	.00158
#2	.00172	.07967	.00088	.00029	-0.00701	-0.05088	-0.00032	.00050	.00035

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3079.8	54293.	6649.2
Stddev	16.9	100.	12.0
%RSD	.54870	.18397	.18087

#1	3067.8	54223.	6657.7
#2	3091.7	54364.	6640.7

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00738	49.164	.00126	.00171	.00048	-0.00005	1.0450	.04889	-0.00032	.00002	.00069
Stddev	.00031	.184	.00025	.00006	.00006	.00007	.0066	.00552	.00004	.00005	.00051
%RSD	4.1497	.37408	19.956	3.2498	12.698	125.29	.63338	11.291	13.321	222.06	73.132

#1	-0.00760	49.034	.00108	.00167	.00044	-0.00001	1.0497	.05279	-0.00029	-0.00001	.00105
#2	-0.00716	49.294	.00144	.00175	.00053	-0.00010	1.0403	.04498	-0.00035	.00006	.00033

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00070	49.032	-0.07164	.00079	.05398	-0.00159	-0.00010	249.40	.00232	.00801	.00009
Stddev	.00045	.751	.00606	.00016	.00302	.00001	.00021	.50	.00030	.00033	.00079
%RSD	64.456	1.5312	8.4657	20.058	5.5959	.70531	212.93	.19978	12.985	4.1448	840.61

#1	-0.00038	48.501	-.06735	.00068	.05612	-0.00159	.00005	249.05	.00211	.00825	-.00046
#2	-0.00102	49.563	-.07593	.00090	.05184	-0.00158	-0.00024	249.75	.00253	.00778	.00065

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.1191	-0.01134	.00598	-.03178	-.06800	-0.00165	.00042	5.0122	-.01243	.00106	W 10.674
Stddev	.0166	.00262	.00117	.00557	.01193	.00016	.00005	.0159	.00010	.00021	.001
%RSD	.32505	23.080	19.525	17.543	17.543	9.6591	12.927	.31784	.81213	20.118	.00823

#1	5.1308	-.01319	.00515	-.02784	-.05957	-0.00154	.00038	5.0009	-.01250	.00091	10.674
#2	5.1073	-.00949	.00680	-.03572	-.07644	-0.00177	.00045	5.0234	-.01236	.00122	10.673

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value											10.000
Range											5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00246	-.00014	-.12932
Stddev	.00028	.00006	.00051
%RSD	11.239	45.222	.39106

#1	.00226	-.00019	-.12896
#2	.00266	-.00010	-.12968

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3033.4	52617.	6399.4
Stddev	2.7	203.	15.7
%RSD	.08801	.38542	.24574

#1	3035.3	52761.	6410.5
#2	3031.5	52474.	6388.3

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49980	F .55563	1.0286	.53135	.49611	.48447	.00161	4.8997	.52329	.51437	.52523	.50673
Stddev	.00348	.00020	.0051	.00025	.00482	.00411	.00012	.0403	.00019	.00165	.00175	.00128
%RSD	.69623	.03660	.49523	.04708	.97156	.84861	7.1463	.82167	.03541	.32062	.33389	.25170

#1	.50226	.55578	1.0322	.53118	.49951	.48738	.00170	4.9281	.52342	.51320	.52647	.50763
#2	.49734	.55549	1.0250	.53153	.49270	.48156	.00153	4.8712	.52316	.51554	.52399	.50582

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value		.50000										
Range		10.490%										

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.4547	49.358	.99646	19.765	.51316	.50505	5.1425	.50741	1.0566	1.0091	.02331	1.0406
Stddev	.0242	.420	.00762	.012	.00020	.00001	.0587	.00093	.0008	.0009	.00731	.0013
%RSD	.98712	.85032	.76503	.06218	.03915	.00155	1.1422	.18366	.07874	.08952	31.355	.12718

#1	2.4718	49.655	1.0018	19.773	.51330	.50505	5.1840	.50675	1.0560	1.0084	.02848	1.0415
#2	2.4376	49.061	.99107	19.756	.51301	.50504	5.1010	.50806	1.0572	1.0097	.01814	1.0396

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0154	4.8475	10.374	1.0172	.49616	-.00006	.50854	1.0336	-.00577	.52027	.50341	.48679
Stddev	.0140	.0459	.098	.0028	.00490	.00181	.00014	.0024	.00186	.00485	.00052	.00087
%RSD	1.3810	.94584	.94584	.27238	.98726	2990.4	.02722	.23718	32.179	.93261	.10420	.17901

#1	1.0253	4.8151	10.304	1.0192	.49962	.00122	.50844	1.0353	-.00708	.51684	.50378	.48741
#2	1.0054	4.8799	10.443	1.0153	.49269	-.00134	.50864	1.0319	-.00446	.52370	.50304	.48617

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass				
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3077.3	53383.	6405.0
Stddev	12.1	126.	15.0
%RSD	.39279	.23640	.23494

#1	3085.9	53472.	6394.3
#2	3068.8	53294.	6415.6

Sample Name: CCB Acquired: 5/30/2015 22:20:09 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0018	.00014	-0.00015	.00091	.00001	.00002	-0.00236	.00140	-0.00018	.00002	.00000	-0.00101	.00084
Stddev	.00027	.00021	.00191	.00045	.00021	.00003	.00159	.00017	.00019	.00020	.00002	.00024	.00058
%RSD	147.93	149.18	1285.4	49.832	2029.2	145.08	67.334	11.821	105.03	886.68	526.91	23.313	68.679
#1	-0.00037	-0.00001	-0.00150	.00123	.00016	.00005	-0.00349	.00128	-0.00005	.00016	-0.00001	-0.00118	.00125
#2	.00001	.00029	.00120	.00059	-0.00014	.00000	-0.00124	.00151	-0.00032	-0.00012	.00002	-0.00085	.00043

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.03616	-0.00068	.00103	-0.00002	.00017	.01739	-0.00003	.00231	-0.00058	.01652	-0.00235	.00154	-0.01975
Stddev	.02274	.00162	.00390	.00008	.00010	.00028	.00038	.00073	.00074	.00399	.00241	.00116	.01468
%RSD	62.879	238.58	380.32	520.37	57.476	1.6317	1135.9	31.410	127.24	24.169	102.66	75.154	74.320
#1	-0.02008	.00047	-0.00173	-0.00007	.00010	.01719	-0.00030	.00283	-0.00110	.01370	-0.00406	.00236	-0.03013
#2	-0.05224	-0.00183	.00379	.00004	.00024	.01759	.00024	.00180	-0.00006	.01935	-0.00064	.00072	-0.00937

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.04227	.00097	.00013	.00311	.00059	.00089	-0.03097	-0.00023	.00021	.00105
Stddev	.03142	.00117	.00012	.00149	.00021	.00034	.01269	.00003	.00065	.00184
%RSD	74.320	121.22	96.559	48.052	36.474	38.091	40.995	14.613	314.90	174.98
#1	-0.06448	.00014	.00021	.00205	.00074	.00065	-0.02199	-0.00021	-0.00025	.00235
#2	-0.02006	.00180	.00004	.00417	.00044	.00113	-0.03994	-0.00026	.00067	-0.00025

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3121.8	54437.	6471.2
Stddev	.3	81.	42.7
%RSD	.01016	.14809	.65981
#1	3122.1	54380.	6501.4
#2	3121.6	54494.	6441.0

Sample Name: CCVL3301032 Acquired: 5/30/2015 22:22:31 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01025	.11860	.01249	.11464	.01054	.00090	.11438	.20970	.00574	.01133	.01086	.01601	.10060	3.1288
Stddev	.00027	.00005	.00166	.00008	.00019	.00009	.00362	.00332	.00019	.00016	.00014	.00013	.00136	.0104
%RSD	2.6669	.04455	13.311	.07401	1.7682	10.033	3.1616	1.5853	3.3385	1.3934	1.3291	.79155	1.3470	.33183

#1	.01045	.11864	.01367	.11458	.01041	.00096	.11693	.20735	.00560	.01122	.01076	.01610	.10156	3.1362
#2	.01006	.11856	.01132	.11470	.01068	.00084	.11182	.21206	.00587	.01144	.01096	.01592	.09964	3.1215

Check ?	Chk Pass													
Value														
Range														

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00987	.22133	.01129	.02141	1.1090	.04454	3.2817	.01021	.01760	.01072	.01770	.48284	1.0333	.10984
Stddev	.00052	.00598	.00010	.00003	.0047	.00014	.0124	.00026	.00308	.00244	.00405	.00688	.0147	.00068
%RSD	5.2290	2.7039	.92215	.12499	.41982	.30933	.37798	2.5466	17.528	22.740	22.894	1.4239	1.4239	.61596

#1	.00951	.22556	.01122	.02143	1.1123	.04464	3.2729	.01040	.01542	.00900	.02056	.48770	1.0437	.11032
#2	.01024	.21710	.01136	.02139	1.1057	.04444	3.2904	.01003	.01978	.01245	.01483	.47798	1.0229	.10936

Check ?	Chk Pass	None	Chk Pass											
Value														
Range														

Elem	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01070	.01885	.01062	.01696	.04718	.01074	.02349	.01364
Stddev	.00002	.00122	.00013	.00185	.00318	.00023	.00005	.00064
%RSD	.15021	6.4567	1.2505	10.909	6.7325	2.1486	.21337	4.7101

#1	.01071	.01799	.01071	.01826	.04493	.01057	.02346	.01318
#2	.01068	.01971	.01052	.01565	.04943	.01090	.02353	.01409

Check ?	Chk Pass							
Value								
Range								

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3003.6	52539.	6214.4
Stddev	3.1	130.	14.1
%RSD	.10285	.24722	.22648

#1	3005.8	52631.	6204.5
#2	3001.4	52447.	6224.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00020	.01378	-.00184	.01830	.03901	-.00015	-.00078	59.816	.00019
Stddev	.00026	.00048	.00144	.00130	.00018	.00015	.00123	.037	.00014
%RSD	126.73	3.4699	78.112	7.1195	.45447	99.397	157.32	.06151	73.322

#1	.00002	.01344	-.00286	.01922	.03889	-.00026	.00009	59.790	.00009
#2	.00038	.01412	-.00083	.01738	.03914	-.00004	-.00165	59.842	.00029

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.00034	.00025	.22903	3.1584	.01667	45.377	.00179	-.00139
Stddev	.00026	.00007	.00030	.00046	.0407	.00182	.035	.00008	.00044
%RSD	435.78	20.335	118.29	.19991	1.2880	10.893	.07621	4.3856	31.738

#1	.00025	.00029	.00004	.22870	3.1872	.01795	45.402	.00173	-.00108
#2	-.00013	.00039	.00047	.22935	3.1297	.01539	45.353	.00184	-.00170

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.8053	.00543	.01157	.00177	21.359	-.00211	.00544	4.1862	8.9585
Stddev	.0122	.00044	.00098	.00009	.092	.00055	.00279	.0094	.0200
%RSD	.43406	8.1155	8.4974	4.9747	.43148	25.982	51.194	.22345	.22345

#1	2.8139	.00574	.01087	.00183	21.425	-.00250	.00347	4.1928	8.9727
#2	2.7967	.00512	.01226	.00170	21.294	-.00172	.00741	4.1796	8.9443

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00197	.03967	.00248	.00037	-.00443	-.00681	-.00170	.00091	.00033
Stddev	.00008	.00023	.00066	.00024	.00031	.01623	.00025	.00061	.00095
%RSD	4.0967	.58082	26.605	63.890	6.8845	238.43	14.510	66.933	286.33

#1	.00203	.03984	.00202	.00054	-.00422	.00467	-.00152	.00048	-.00034
#2	.00192	.03951	.00295	.00020	-.00465	-.01828	-.00187	.00134	.00100

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2933.4	51287.	6231.4
Stddev	.9	122.	18.7
%RSD	.03108	.23732	.29951

#1	2934.0	51201.	6218.2
#2	2932.7	51373.	6244.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0010	.00227	-0.00218	.01806	.03398	-0.0011	.00112	63.535	.00005
Stddev	.00006	.00026	.00145	.00006	.00003	.00011	.00076	.005	.00032
%RSD	60.454	11.234	66.533	.35636	.07949	99.551	67.649	.00757	689.48

#1	-0.0006	.00245	-0.00321	.01801	.03396	-0.0018	.00059	63.531	.00027
#2	-0.0014	.00209	-0.00116	.01810	.03400	-0.0003	.00166	63.538	-0.0018

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00643	.00098	.00029	1.1474	1.8453	.02465	28.544	.04255	-0.0160
Stddev	.00002	.00001	.00025	.0068	.0069	.00024	.041	.00016	.00047
%RSD	.27970	.99839	85.345	.59043	.37480	.98228	.14530	.38017	29.054

#1	.00645	.00099	.00047	1.1426	1.8404	.02482	28.515	.04266	-0.0193
#2	.00642	.00097	.00012	1.1521	1.8502	.02447	28.573	.04243	-0.0127

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.5246	.01500	.00724	.00228	22.791	.00086	.00254	4.0383	8.6419
Stddev	.0092	.00070	.00208	.00067	.027	.00037	.00279	.0518	.1108
%RSD	.20217	4.6536	28.749	29.534	.11637	42.864	110.13	1.2817	1.2817

#1	4.5182	.01550	.00577	.00180	22.810	.00112	.00056	4.0017	8.5636
#2	4.5311	.01451	.00871	.00276	22.772	.00060	.00451	4.0749	8.7202

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00105	.04953	.00100	-0.00014	-0.00512	-0.03493	-0.00094	.00151	-0.00047
Stddev	.00091	.00041	.00079	.00038	.00061	.00228	.00051	.00043	.00093
%RSD	86.634	.83715	79.311	274.87	11.988	6.5274	53.914	28.651	198.45

#1	.00041	.04923	.00155	.00013	-0.00556	-0.03654	-0.00058	.00182	.00019
#2	.00169	.04982	.00044	-0.00041	-0.00469	-0.03331	-0.00129	.00121	-0.00113

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2935.5	51232.	6274.0
Stddev	8.4	26.	3.2
%RSD	.28766	.05018	.05028

#1	2941.5	51250.	6271.7
#2	2929.5	51213.	6276.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00036	.00236	-.00101	.01589	.03337	-.00018	.00042	62.392	-.00006
Stddev	.00058	.00042	.00195	.00021	.00018	.00001	.00061	.147	.00023
%RSD	161.74	17.888	192.97	1.3099	.52903	5.1070	145.70	.23561	394.34

#1	-.00005	.00206	-.00239	.01575	.03324	-.00017	.00085	62.288	-.00022
#2	.00076	.00266	.00037	.01604	.03349	-.00019	-.00001	62.496	.00010

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00668	.00107	.00031	1.0159	1.7946	.02477	27.857	.04191	-.00138
Stddev	.00064	.00024	.00026	.0054	.0392	.00037	.023	.00052	.00003
%RSD	9.5939	22.237	81.584	.53443	2.1832	1.4927	.08118	1.2356	2.1318

#1	.00623	.00090	.00013	1.0120	1.8223	.02451	27.873	.04154	-.00140
#2	.00713	.00124	.00049	1.0197	1.7669	.02503	27.841	.04227	-.00136

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.4293	.01470	.01054	.00252	22.071	-.00030	-.00119	3.9495	8.4519
Stddev	.0011	.00046	.00198	.00118	.124	.00052	.00361	.0247	.0529
%RSD	.02532	3.1457	18.810	46.653	.56150	173.28	303.01	.62626	.62626

#1	4.4301	.01437	.00913	.00335	21.984	-.00066	.00136	3.9320	8.4144
#2	4.4285	.01502	.01194	.00169	22.159	.00007	-.00375	3.9670	8.4893

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00196	.04856	.00311	-.00004	-.00608	-.03568	-.00116	.00149	-.00010
Stddev	.00106	.00037	.00100	.00013	.00242	.00059	.00049	.00025	.00276
%RSD	54.196	.75395	32.332	332.44	39.872	1.6628	42.425	16.951	2697.0

#1	.00121	.04830	.00240	.00005	-.00437	-.03526	-.00082	.00166	.00185
#2	.00272	.04882	.00382	-.00013	-.00779	-.03609	-.00151	.00131	-.00205

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2950.8	51491.	6272.8
Stddev	18.5	44.	39.3
%RSD	.62653	.08540	.62581

#1	2963.8	51522.	6300.6
#2	2937.7	51459.	6245.1

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00712	51.618	.00086	.00116	.00048	-0.00011	W 1.0834	.04389	-0.00022	-0.00040	.00052
Stddev	.00027	.355	.00074	.00105	.00016	.00005	.0056	.00587	.00003	.00040	.00013
%RSD	3.8177	.68849	85.844	91.070	33.479	40.085	.52156	13.369	14.229	99.681	25.808

#1	-0.00693	51.367	.00138	.00041	.00059	-0.00008	1.0874	.04804	-0.00025	-0.00069	.00043
#2	-0.00732	51.870	.00034	.00190	.00037	-0.00014	1.0794	.03974	-0.00020	-0.00012	.00062

Check ?	None	Chk Pass	None	None	None	None	Chk Warn	None	None	None	None
Value							1.0000				
Range							5.0000%				

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00092	51.101	-0.03391	.00008	.05743	-0.00153	-0.00069	259.64	.00211	.00856	.00134
Stddev	.00030	.984	.06370	.00055	.00184	.00010	.00015	.23	.00020	.00129	.00111
%RSD	32.460	1.9247	187.87	648.39	3.2046	6.8020	22.041	.08882	9.3028	15.066	82.803

#1	-0.00113	50.405	.01114	-0.00030	.05613	-0.00145	-0.00058	259.81	.00225	.00947	.00055
#2	-0.00071	51.796	-.07895	.00047	.05873	-0.00160	-0.00080	259.48	.00197	.00765	.00212

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 5.2950	-0.01305	.01080	-0.03117	-0.06669	-0.00120	.00038	W 5.2699	-0.01387	.00267	W 10.951
Stddev	.0382	.00044	.00132	.00883	.01890	.00130	.00004	.0312	.00010	.00106	.089
%RSD	.72162	3.3659	12.251	28.338	28.338	108.66	10.481	.59175	.71192	39.473	.81658

#1	5.3220	-.01274	.00986	-.02492	-.05333	-.00212	.00041	5.2920	-.01394	.00193	11.014
#2	5.2680	-.01336	.01173	-.03741	-.08006	-.00028	.00035	5.2479	-.01380	.00342	10.888

Check ?	Chk Warn	None	None	None	None	None	None	Chk Warn	None	None	Chk Warn
Value	5.0000							5.0000			10.000
Range	5.0000%							5.0000%			5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00290	.00051	-.13876
Stddev	.00039	.00117	.00630
%RSD	13.429	227.05	4.5432

#1	.00263	-.00031	-.14322
#2	.00318	.00134	-.13431

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2946.7	50722.	6169.8
Stddev	.1	104.	33.0
%RSD	.00294	.20529	.53410

#1	2946.6	50649.	6193.1
#2	2946.7	50796.	6146.5

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51270	F .57055	1.0436	.53867	.50454	.49342	.00025	4.9916	.53542	.52312	.52666	.52086
Stddev	.00266	.00465	.0021	.00240	.00185	.00171	.00300	.0170	.00053	.00174	.00164	.00409
%RSD	.51970	.81427	.19705	.44481	.36727	.34563	1215.8	.34113	.09906	.33305	.31075	.78472

#1	.51459	.56727	1.0421	.53698	.50323	.49222	.00237	5.0036	.53505	.52189	.52550	.52375
#2	.51082	.57384	1.0450	.54037	.50585	.49463	-.00187	4.9796	.53580	.52436	.52781	.51797

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value		.50000										
Range		10.490%										

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.4949	50.599	1.0191	20.393	.52581	.51201	5.2356	.51468	1.0733	1.0283	.01471	1.0627
Stddev	.0071	.135	.0010	.120	.00191	.00172	.0295	.00174	.0082	.0019	.00505	.0018
%RSD	.28323	.26615	.09521	.58596	.36325	.33509	.56382	.33794	.76682	.18154	34.351	.17337

#1	2.4999	50.504	1.0184	20.478	.52716	.51079	5.2147	.51345	1.0675	1.0270	.01829	1.0614
#2	2.4899	50.694	1.0198	20.309	.52446	.51322	5.2564	.51591	1.0791	1.0297	.01114	1.0640

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0403	4.8680	10.417	1.0331	.50561	.00183	.52142	1.0563	-.01722	.53698	.51204	.49352
Stddev	.0040	.0182	.039	.0024	.00197	.00194	.00285	.0052	.00191	.00060	.00031	.00493
%RSD	.38739	.37355	.37355	.23294	.38930	106.24	.54583	.49523	11.106	.11127	.06088	.99826

#1	1.0375	4.8808	10.445	1.0314	.50422	.00320	.52344	1.0526	-.01857	.53740	.51182	.49700
#2	1.0432	4.8551	10.390	1.0348	.50701	.00046	.51941	1.0600	-.01587	.53656	.51226	.49003

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass				
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3035.6	52426.	6255.1
Stddev	4.7	96.	56.7
%RSD	.15357	.18332	.90589

#1	3032.3	52358.	6295.1
#2	3038.9	52494.	6215.0

Sample Name: CCB Acquired: 5/30/2015 22:38:21 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00015	.00052	-.00062	.00093	.00021	-.00008	.00035	.00120	-.00012	.00018	-.00009	-.00072	-.00047
Stddev	.00084	.00022	.00164	.00022	.00006	.00003	.00138	.00121	.00007	.00002	.00006	.00002	.00099
%RSD	569.58	41.512	263.96	23.300	29.554	32.699	400.02	100.28	58.674	10.805	68.481	2.6813	209.62
#1	.00074	.00067	-.00178	.00078	.00025	-.00010	-.00063	.00206	-.00007	.00019	-.00004	-.00074	-.00117
#2	-.00045	.00037	.00054	.00109	.00017	-.00006	.00133	.00035	-.00017	.00016	-.00013	-.00071	.00023

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.07859	-.00014	.00359	-.00002	.00005	.02136	-.00010	-.00242	-.00052	.00711	-.00007	-.00034	-.02803
Stddev	.00548	.00075	.00179	.00002	.00076	.00661	.00037	.00043	.00161	.00034	.00059	.00474	.01615
%RSD	6.9704	526.04	49.894	72.107	1561.6	30.963	359.20	17.826	308.68	4.8369	897.81	1403.7	57.616
#1	-.07471	-.00068	.00485	-.00001	-.00049	.02603	.00016	-.00211	.00062	.00687	.00035	.00302	-.01661
#2	-.08246	.00039	.00232	-.00003	.00058	.01668	-.00037	-.00272	-.00166	.00736	-.00048	-.00369	-.03945

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.05998	.00167	.00004	.00149	-.00002	.00018	-.02268	.00063	.00052	.00055
Stddev	.03456	.00067	.00000	.00063	.00011	.00053	.02179	.00064	.00041	.00032
%RSD	57.616	40.234	8.9105	42.093	707.95	287.39	96.063	101.22	78.964	57.923
#1	-.03555	.00120	.00003	.00105	-.00009	-.00019	-.03809	.00108	.00023	.00077
#2	-.08442	.00215	.00004	.00193	.00006	.00055	-.00728	.00018	.00080	.00032

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3078.8	53321.	6343.1
Stddev	2.8	261.	69.4
%RSD	.09039	.48944	1.0947
#1	3076.9	53505.	6294.0
#2	3080.8	53136.	6392.2

Sample Name: CCVL330103200 Acquired: 5/30/2015 22:40:44 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01024	.11449	.01397	.10831	.00996	.00090	.10837	.19945	.00529	.01079	.01043	.01554	.09573	2.9925
Stddev	.00051	.00044	.00118	.00046	.00021	.00001	.00100	.00775	.00009	.00001	.00023	.00073	.00109	.0074
%RSD	4.9530	.38843	8.4407	.42380	2.1360	.86469	.91998	3.8844	1.6280	.09992	2.1842	4.6896	1.1358	.24697

#1	.01060	.11418	.01314	.10799	.01011	.00089	.10767	.20493	.00535	.01078	.01027	.01606	.09650	2.9978
#2	.00988	.11481	.01480	.10863	.00981	.00090	.10908	.19397	.00523	.01080	.01060	.01503	.09496	2.9873

Check ?	Chk Pass													
Value														
Range														

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00912	.21028	.01071	.02009	1.0517	.04240	3.1085	.00892	.01829	.00818	.01687	.45033	.96371	.10419
Stddev	.00049	.00058	.00019	.00013	.0005	.00122	.0117	.00007	.00544	.00119	.00083	.00452	.00967	.00150
%RSD	5.4091	.27477	1.7860	.63928	.04361	2.8834	.37515	.82132	29.751	14.612	4.9026	1.0033	1.0033	1.4419

#1	.00947	.20987	.01084	.02019	1.0520	.04154	3.1002	.00897	.01444	.00733	.01628	.44714	.95687	.10313
#2	.00877	.21069	.01057	.02000	1.0514	.04327	3.1167	.00887	.02214	.00902	.01745	.45353	.97055	.10526

Check ?	Chk Pass	None	Chk Pass											
Value														
Range														

Elem	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01019	.01714	.01005	.01782	.04948	.01051	.02218	.01363
Stddev	.00010	.00012	.00008	.00078	.01528	.00088	.00046	.00094
%RSD	.93530	.67548	.75695	4.3519	30.884	8.4140	2.0724	6.9094

#1	.01026	.01722	.01000	.01728	.06029	.01114	.02186	.01296
#2	.01012	.01706	.01011	.01837	.03868	.00989	.02251	.01429

Check ?	Chk Pass							
Value								
Range								

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3098.5	53888.	6396.7
Stddev	5.0	45.	10.7
%RSD	.16091	.08370	.16768

#1	3095.0	53856.	6404.3
#2	3102.0	53920.	6389.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	.00579	.00018	.00079	.00021	-.00003	.00059	.03063	-.00010
Stddev	.00019	.00018	.00060	.00034	.00002	.00001	.00062	.01001	.00003
%RSD	116.74	3.1279	329.74	43.457	8.4960	37.616	105.11	32.697	29.222

#1	.00029	.00591	-.00024	.00103	.00023	-.00002	.00103	.02355	-.00012
#2	.00003	.00566	.00060	.00055	.00020	-.00004	.00015	.03771	-.00008

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	-.00001	-.00054	.02624	-.07468	-.00143	.00059	.00021	.00029
Stddev	.00022	.00012	.00057	.00448	.01018	.00106	.00663	.00004	.00034
%RSD	360.14	1186.6	105.69	17.082	13.630	73.641	1119.8	20.546	117.32

#1	-.00022	.00008	-.00094	.02307	-.08188	-.00069	-.00410	.00018	.00005
#2	.00010	-.00010	-.00014	.02941	-.06748	-.00218	.00528	.00024	.00053

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02264	-.00016	.00421	-.00141	.01141	-.00269	.00010	-.02321	-.04967
Stddev	.02373	.00037	.00074	.00053	.00526	.00161	.00192	.01618	.03463
%RSD	104.82	241.66	17.517	37.882	46.098	59.664	1999.1	69.725	69.725

#1	.00586	.00011	.00473	-.00178	.01513	-.00383	-.00126	-.03465	-.07416
#2	.03942	-.00042	.00369	-.00103	.00769	-.00156	.00146	-.01177	-.02518

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00084	.00014	.00100	.00040	-.00004	-.01595	-.00019	.00078	.00094
Stddev	.00080	.00010	.00205	.00036	.00049	.02426	.00022	.00110	.00021
%RSD	94.668	70.564	204.82	90.836	1131.7	152.12	117.36	141.24	21.980

#1	.00141	.00007	.00245	.00014	-.00039	-.03310	-.00034	.00156	.00079
#2	.00028	.00021	-.00045	.00066	.00030	.00121	-.00003	.00000	.00108

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3126.1	55024.	6455.9
Stddev	4.3	132.	28.9
%RSD	.13603	.23986	.44825

#1	3129.2	55118.	6435.5
#2	3123.1	54931.	6476.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04761	2.1291	1.0803	F 1.1266	2.0513	.05005	2.1625	49.156	.11048
Stddev	.00071	.0159	.0092	.0069	.0034	.00062	.0120	.011	.00026
%RSD	1.4901	.74576	.85185	.60853	.16386	1.2292	.55306	.02274	.23565

#1	.04811	2.1404	1.0868	1.1314	2.0537	.04962	2.1709	49.163	.11067
#2	.04711	2.1179	1.0738	1.1218	2.0490	.05049	2.1540	49.148	.11030

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit				1.1050					
Low Limit				.86000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52051	F .21078	.26642	.99383	51.748	1.0302	51.509	.53228	1.0844
Stddev	.00113	.00019	.00089	.01858	.045	.0009	.195	.00215	.0053
%RSD	.21746	.09134	.33472	1.8700	.08784	.08392	.37761	.40401	.49343

#1	.52131	.21065	.26579	.98069	51.780	1.0308	51.371	.53076	1.0882
#2	.51971	.21092	.26705	1.0070	51.716	1.0296	51.646	.53380	1.0806

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	55.508	.51395	F 11.443	.52591	2.2037	F .56689	2.2355	9.9790	21.355
Stddev	.143	.00258	.033	.00010	.0093	.00851	.0190	.0755	.162
%RSD	.25711	.50155	.29189	.01859	.42321	1.5010	.85084	.75697	.75697

#1	55.407	.51578	11.466	.52598	2.2103	.57291	2.2489	9.9256	21.241
#2	55.609	.51213	11.419	.52584	2.1971	.56087	2.2220	10.032	21.469

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Fail	Chk Pass	Chk Pass	None
High Limit			11.100			.55499			
Low Limit			9.1000			.44000			

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.1175	1.0262	1.0698	1.0635	2.1475	2.2222	.54329	.51347	.47684
Stddev	.0105	.0002	.0039	.0060	.0205	.0328	.00347	.00253	.00495
%RSD	.49785	.01903	.36529	.56168	.95544	1.4740	.63885	.49368	1.0371

#1	2.1250	1.0261	1.0670	1.0593	2.1620	2.1991	.54084	.51168	.47334
#2	2.1101	1.0263	1.0726	1.0677	2.1330	2.2454	.54574	.51526	.48033

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3017.7	51978.	6418.2
Stddev	13.1	124.	7.8
%RSD	.43371	.23946	.12176

#1	3008.5	52066.	6412.7
#2	3027.0	51890.	6423.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00040	.00670	-.00306	.10441	.60278	.00001	.00242	224.12	-.00005
Stddev	.00036	.00005	.00388	.00344	.00689	.00007	.00019	2.27	.00040
%RSD	90.223	.77039	126.80	3.2953	1.1427	532.37	7.9895	1.0135	859.40

#1	.00014	.00673	-.00580	.10684	.60765	.00006	.00256	225.72	.00024
#2	.00065	.00666	-.00032	.10197	.59791	-.00004	.00228	222.51	-.00033

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00051	.00099	.03335	.01759	1.7838	.05782	58.837	.08836	-.00150
Stddev	.00048	.00015	.00013	.00903	.0037	.00090	.062	.00022	.00032
%RSD	93.090	14.962	.39001	51.358	.20654	1.5646	.10537	.25391	21.601

#1	-.00018	.00088	.03344	.02397	1.7812	.05846	58.881	.08851	-.00127
#2	-.00085	.00109	.03326	.01120	1.7864	.05718	58.793	.08820	-.00173

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	144.63	.00407	.02381	.00291	4.5132	-.00175	.00636	13.519	28.931
Stddev	1.27	.00006	.00170	.00179	.0110	.00147	.00185	.292	.624
%RSD	.87774	1.4455	7.1293	61.601	.24257	84.119	29.059	2.1582	2.1582

#1	145.53	.00403	.02501	.00418	4.5209	-.00071	.00767	13.725	29.372
#2	143.73	.00411	.02261	.00164	4.5054	-.00279	.00505	13.313	28.489

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00129	1.3585	.00185	.00028	-.00871	-.01116	.00031	.21443	.00108
Stddev	.00267	.0136	.00076	.00002	.00185	.01471	.00033	.00191	.00008
%RSD	207.59	1.0024	41.243	7.5277	21.209	131.76	108.81	.89089	7.6689

#1	.00318	1.3682	.00131	.00026	-.01001	-.00076	.00007	.21308	.00102
#2	-.00060	1.3489	.00239	.00029	-.00740	-.02156	.00054	.21579	.00114

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2936.4	51412.	6353.4
Stddev	18.6	60.	64.6
%RSD	.63189	.11686	1.0165

#1	2949.5	51454.	6307.7
#2	2923.3	51369.	6399.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.00454	-.00124	.06336	.34273	-.00004	.00253	122.78	.00002
Stddev	.00051	.00103	.00168	.00091	.00103	.00004	.00189	.30	.00026
%RSD	1305.6	22.609	136.02	1.4363	.30171	97.063	74.569	.24393	1259.6

#1	-.00032	.00527	-.00005	.06401	.34199	-.00001	.00120	122.57	.00020
#2	.00040	.00382	-.00243	.06272	.34346	-.00006	.00386	122.99	-.00016

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00103	.00050	.03181	.01540	1.8431	.02347	20.746	.08773	-.00193
Stddev	.00006	.00014	.00024	.00037	.0319	.00080	.005	.00055	.00046
%RSD	5.4982	28.390	.75617	2.3823	1.7290	3.3957	.02346	.62687	24.023

#1	.00107	.00060	.03198	.01514	1.8206	.02403	20.742	.08734	-.00160
#2	.00099	.00040	.03164	.01566	1.8656	.02291	20.749	.08812	-.00226

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	165.42	.00540	.03355	.00356	18.048	.00313	.00664	13.085	28.001
Stddev	.77	.00046	.00172	.00172	.038	.00086	.00475	.190	.406
%RSD	.46269	8.5114	5.1339	48.252	.21139	27.404	71.636	1.4501	1.4501

#1	164.88	.00573	.03233	.00234	18.021	.00252	.00327	12.951	27.714
#2	165.96	.00508	.03477	.00477	18.075	.00373	.01000	13.219	28.288

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00202	.53174	.00216	.00033	W -.01009	-.01983	.00584	.05430	.00133
Stddev	.00048	.00229	.00192	.00068	.00106	.00477	.00050	.00025	.00023
%RSD	23.596	.43061	88.962	204.42	10.461	24.067	8.5227	.45705	17.303

#1	.00235	.53012	.00352	.00082	-.00934	-.02320	.00549	.05447	.00149
#2	.00168	.53336	.00080	-.00015	-.01083	-.01645	.00620	.05412	.00117

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000				
Low Limit					-.01000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2997.0	52113.	6436.1
Stddev	11.0	189.	13.7
%RSD	.36578	.36203	.21266

#1	2989.2	52246.	6445.7
#2	3004.7	51979.	6426.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0020	.00292	-0.00108	.00102	.00005	-0.0012	.00044	.04412	-0.00009
Stddev	.00014	.00000	.00239	.00007	.00000	.00016	.00049	.00587	.00003
%RSD	70.875	.02274	221.85	6.5900	1.2959	128.13	113.19	13.307	31.294

#1	-0.0010	.00292	-0.00277	.00098	.00005	-0.0001	.00079	.04827	-0.0007
#2	-0.00030	.00292	.00061	.00107	.00005	-0.00023	.00009	.03997	-0.0011

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	-0.00021	-0.00081	.00300	-0.01703	-0.00012	.00274	.00017	.00045
Stddev	.00005	.00002	.00034	.00167	.01275	.00070	.00064	.00009	.00013
%RSD	58.472	9.6103	41.914	55.791	74.868	589.00	23.442	50.818	28.214

#1	.00013	-0.00023	-0.00057	.00418	-0.02605	.00038	.00319	.00011	.00053
#2	.00006	-0.00020	-0.00105	.00182	-0.00802	-0.00061	.00228	.00023	.00036

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10879	-0.00016	.00372	-0.00145	.01112	-0.00223	-0.00052	-0.00431	-0.00921
Stddev	.01091	.00019	.00086	.00032	.00134	.00366	.00085	.00294	.00630
%RSD	10.029	123.39	23.138	22.237	12.071	163.94	165.31	68.386	68.386

#1	.11651	-0.00029	.00433	-0.00167	.01017	-0.00482	.00009	-0.00222	-0.00476
#2	.10108	-0.00002	.00311	-0.00122	.01207	.00036	-0.00112	-0.00639	-0.01367

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00048	.00017	.00154	-0.00014	-0.00070	.00833	.00016	.00172	.00094
Stddev	.00046	.00003	.00114	.00017	.00070	.00627	.00015	.00082	.00131
%RSD	95.742	19.503	74.375	121.81	100.84	75.276	94.125	47.552	139.87

#1	.00081	.00020	.00234	-0.00026	-0.00020	.01276	.00027	.00114	.00001
#2	.00016	.00015	.00073	-0.00002	-0.00120	.00390	.00005	.00230	.00187

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3175.1	55355.	6564.4
Stddev	9.2	293.	18.5
%RSD	.28898	.52985	.28257

#1	3168.6	55562.	6551.3
#2	3181.5	55147.	6577.5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0003	5.4018	-0.00584	.06572	.02921	.00004	.00120	W 541.06	-0.00085
Stddev	.00007	.0476	.00164	.00075	.00025	.00002	.00321	5.51	.00008
%RSD	281.42	.88121	27.983	1.1487	.86443	35.742	266.97	1.0181	9.4771

#1	-0.0008	5.3681	-0.00700	.06626	.02904	.00006	-0.00107	544.95	-0.00090
#2	.00003	5.4354	-0.00469	.06519	.02939	.00003	.00347	537.16	-0.00079

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								500.00	
Low Limit								-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00240	.00229	.00981	4.6042	9.9150	.04359	86.799	.13230	-0.00349
Stddev	.00035	.00007	.00003	.0245	.1078	.00178	.202	.00037	.00022
%RSD	14.517	3.0172	.31500	.53176	1.0869	4.0759	.23324	.27954	6.1823

#1	.00264	.00234	.00983	4.5869	9.8388	.04233	86.942	.13257	-0.00365
#2	.00215	.00224	.00979	4.6215	9.9913	.04484	86.656	.13204	-0.00334

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	372.08	.00564	.17143	.00569	F 384.53	.00656	.03783	14.808	31.690
Stddev	.78	.00004	.00399	.00101	1.20	.00044	.00175	.110	.236
%RSD	.20897	.63807	2.3299	17.732	.31155	6.6949	4.6387	.74461	.74461

#1	371.53	.00562	.16861	.00498	383.69	.00687	.03659	14.731	31.523
#2	372.63	.00567	.17426	.00640	385.38	.00625	.03907	14.886	31.857

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00097	W 11.912	.00446	.08125	-0.00693	-0.00094	.00915	.01673	.00867
Stddev	.00027	.141	.00078	.00030	.00228	.05233	.00111	.00038	.00054
%RSD	27.490	1.1879	17.565	.36872	32.860	5546.4	12.085	2.2799	6.1740

#1	-0.00078	12.012	.00390	.08146	-0.00532	-.03795	.00836	.01646	.00829
#2	-0.00116	11.812	.00501	.08104	-0.00855	.03606	.00993	.01700	.00905

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		5.0000							
Low Limit		-.01000							

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2849.4	49653.	6329.8
Stddev	1.1	72.	2.4
%RSD	.03742	.14448	.03814

#1	2848.6	49602.	6331.5
#2	2850.1	49704.	6328.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00030	.02342	-.00503	.03691	.00811	-.00014	.00169	430.27	-.00077
Stddev	.00108	.00016	.00613	.00152	.00002	.00015	.00213	3.67	.00030
%RSD	360.63	.68267	121.99	4.1286	.20583	104.06	125.93	.85190	38.592

#1	-.00046	.02354	-.00937	.03799	.00813	-.00024	.00319	432.86	-.00056
#2	.00106	.02331	-.00069	.03584	.00810	-.00004	.00018	427.67	-.00098

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00077	.00071	.00101	.02055	11.225	.02773	37.106	.07734	-.00232
Stddev	.00027	.00014	.00062	.00041	.046	.00074	.141	.00016	.00016
%RSD	35.636	20.322	61.851	1.9988	.40577	2.6633	.37988	.20527	6.9149

#1	-.00096	.00061	.00145	.02026	11.257	.02826	37.206	.07723	-.00243
#2	-.00057	.00081	.00057	.02084	11.193	.02721	37.006	.07745	-.00221

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 504.75	.00461	.00805	.00382	F 623.28	.00468	.03423	5.2490	11.233
Stddev	1.23	.00026	.00194	.00302	3.43	.00263	.00567	.0054	.012
%RSD	.24455	5.6415	24.100	78.946	.55060	56.312	16.574	.10252	.10252

#1	505.63	.00480	.00942	.00595	625.71	.00654	.03022	5.2528	11.241
#2	503.88	.00443	.00668	.00169	620.85	.00281	.03824	5.2452	11.225

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00				200.00				
Low Limit	11.000				-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	W 10.811	.00333	.00034	W -.01069	-.04152	-.00173	.00483	.00161
Stddev	.00003	.123	.00092	.00009	.00350	.00304	.00019	.00006	.00002
%RSD	104.57	1.1352	27.616	27.329	32.731	7.3247	10.751	1.3087	1.5170

#1	-.00006	10.724	.00268	.00027	-.01316	-.04367	-.00159	.00478	.00159
#2	-.00001	10.898	.00399	.00040	-.00821	-.03937	-.00186	.00487	.00162

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		5.0000			5.0000				
Low Limit		-.01000			-.01000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2861.7	50103.	6369.3
Stddev	12.4	204.	73.2
%RSD	.43313	.40690	1.1499

#1	2852.9	49959.	6317.5
#2	2870.4	50248.	6421.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	.00507	.00226	.00744	.00163	-.00001	.00094	89.572	-.00019
Stddev	.00049	.00049	.00013	.00028	.00025	.00006	.00206	.356	.00023
%RSD	428.71	9.6610	5.8718	3.7321	15.254	682.00	220.30	.39722	123.10

#1	-.00023	.00542	.00235	.00725	.00180	.00003	.00240	89.320	-.00035
#2	.00046	.00473	.00217	.00764	.00145	-.00005	-.00052	89.823	-.00002

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00020	.00043	-.00023	.00360	2.1910	.00626	7.9125	.01576	-.00176
Stddev	.00001	.00002	.00007	.00020	.0689	.00051	.0143	.00010	.00011
%RSD	5.2176	5.0633	30.169	5.4559	3.1439	8.1970	.18097	.60434	6.4874

#1	.00020	.00042	-.00018	.00346	2.2397	.00590	7.9227	.01582	-.00168
#2	.00021	.00045	-.00028	.00374	2.1423	.00662	7.9024	.01569	-.00184

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	103.71	.00299	.00368	.00533	123.98	-.00176	.00525	1.0280	2.1999
Stddev	.21	.00023	.00158	.00057	.41	.00066	.00777	.0011	.0024
%RSD	.20049	7.7277	43.012	10.655	.33469	37.745	148.04	.10893	.10893

#1	103.56	.00282	.00480	.00573	124.28	-.00129	.01075	1.0272	2.1982
#2	103.86	.00315	.00256	.00493	123.69	-.00222	-.00025	1.0288	2.2015

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00446	2.2260	.00152	-.00011	-.00604	-.00901	-.00040	.00031	.00049
Stddev	.00134	.0051	.00104	.00011	.00027	.04105	.00032	.00056	.00061
%RSD	30.112	.22847	68.134	97.477	4.5299	455.81	77.983	178.67	123.70

#1	.00351	2.2224	.00079	-.00004	-.00585	.02002	-.00018	.00070	.00006
#2	.00541	2.2296	.00225	-.00019	-.00624	-.03804	-.00063	-.00008	.00092

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3054.3	53581.	6646.5
Stddev	3.7	295.	48.3
%RSD	.12249	.54981	.72697

#1	3056.9	53373.	6680.6
#2	3051.6	53789.	6612.3

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04761	1.9319	W 2.4637	1.0852	1.1150	1.9985	.04744	F 2.1081	492.63
Stddev	.00011	.0067	.0354	.0032	.0038	.0133	.00037	.0076	1.55
%RSD	.22797	.34948	1.4376	.29295	.34366	.66558	.77064	.35919	.31490

#1	.04769	1.9367	2.4888	1.0874	1.1177	2.0079	.04770	2.1134	493.73
#2	.04753	1.9271	2.4387	1.0830	1.1123	1.9891	.04718	2.1027	491.53

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00					.10000	
Low Limit			3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10838	.48114	W .18674	.26276	.96536	63.705	1.0714	84.627	.57358
Stddev	.00014	.00219	.00070	.00060	.00944	.462	.0054	.762	.00529
%RSD	.12505	.45619	.37485	.22917	.97761	.72593	.50323	.90093	.92307

#1	.10847	.48269	.18723	.26319	.97204	64.032	1.0752	85.166	.57733
#2	.10828	.47959	.18624	.26233	.95869	63.378	1.0676	84.088	.56984

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.10000						
Low Limit			-.01000						

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0276	W 569.20	.47386	W 11.889	.47057	F 643.49	.56747	2.3147	15.349
Stddev	.0014	3.11	.00221	.066	.00024	.43	.00661	.0141	.018
%RSD	.13387	.54562	.46609	.55634	.05021	.06701	1.1646	.61151	.11482

#1	1.0286	571.40	.47542	11.935	.47074	643.79	.57214	2.3247	15.361
#2	1.0266	567.00	.47230	11.842	.47041	643.18	.56280	2.3047	15.336

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		500.00		2.0000		200.00			
Low Limit		11.000		-1.0000		-.20000			

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	32.846	1.9377	W 11.959	1.0271	1.0146	1.7838	2.0765	.51856	.47350
Stddev	.038	.0084	.143	.0065	.0087	.0128	.0371	.00424	.00769
%RSD	.11482	.43420	1.1948	.62952	.86097	.71523	1.7840	.81754	1.6239

#1	32.873	1.9437	12.060	1.0317	1.0208	1.7928	2.1027	.52156	.47894
#2	32.820	1.9318	11.858	1.0225	1.0085	1.7748	2.0504	.51557	.46806

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			5.0000						
Low Limit			-.01000						

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.45847
Stddev	.00006
%RSD	.01328

#1	.45843
#2	.45851

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69842-B-2-B MS Acquired: 5/30/2015 23:04:19 Type: Unk

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment: 279390 6010B

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2842.4	49395.	6329.5
Stddev	12.4	327.	53.8
%RSD	.43501	.66146	.85015
#1	2833.7	49164.	6291.5
#2	2851.2	49626.	6367.6

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04842	1.9353	W 2.4433	1.1076	1.1324	1.9882	.04690	F 2.1478	473.94
Stddev	.00001	.0026	.0078	.0013	.0007	.0052	.00000	.0001	7.44
%RSD	.02534	.13576	.32132	.11319	.05899	.25991	.00100	.00707	1.5689

#1	.04841	1.9372	2.4488	1.1085	1.1319	1.9846	.04690	2.1477	468.68
#2	.04843	1.9335	2.4377	1.1067	1.1329	1.9919	.04690	2.1479	479.20

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00					.10000	
Low Limit			3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10932	.48676	W .19067	.26767	.94631	63.450	1.0718	84.311	.57403
Stddev	.00038	.00150	.00045	.00076	.00117	.232	.0050	.005	.00209
%RSD	.34800	.30907	.23371	.28232	.12368	.36616	.46754	.00621	.36489

#1	.10959	.48782	.19098	.26713	.94714	63.286	1.0682	84.314	.57255
#2	.10905	.48569	.19035	.26820	.94548	63.614	1.0753	84.307	.57551

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.10000						
Low Limit			-.01000						

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0459	W 564.89	.47862	W 12.037	.47715	F 652.49	.57516	2.3560	15.146
Stddev	.0001	2.37	.00060	.004	.00361	1.97	.00209	.0044	.015
%RSD	.00940	.41996	.12569	.03433	.75717	.30190	.36335	.18706	.09728

#1	1.0460	563.22	.47819	12.040	.47459	653.88	.57664	2.3529	15.135
#2	1.0459	566.57	.47904	12.034	.47970	651.09	.57368	2.3592	15.156

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		500.00		2.0000		200.00			
Low Limit		11.000		-1.0000		-.20000			

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	32.412	1.9535	W 11.821	1.0326	1.0244	1.7980	2.1058	.51999	.45868
Stddev	.032	.0037	.004	.0054	.0016	.0060	.0437	.00209	.00121
%RSD	.09728	.19099	.03319	.51893	.15984	.33380	2.0758	.40280	.26280

#1	32.389	1.9509	11.824	1.0288	1.0233	1.7938	2.0749	.52147	.45783
#2	32.434	1.9562	11.818	1.0364	1.0256	1.8023	2.1367	.51851	.45953

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			5.0000						
Low Limit			-.01000						

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.45122
Stddev	.00549
%RSD	1.2161

#1	.44734
#2	.45510

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69842-B-2-C MSD Acquired: 5/30/2015 23:07:01 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: broanderl Prep Date: Custom ID2: Custom ID3:
Comment: 279390 6010B

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2872.8	51044.	6730.2
Stddev	13.3	56.	20.1
%RSD	.46402	.10946	.29885
#1	2882.2	51084.	6716.0
#2	2863.3	51005.	6744.4

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00755	47.873	-0.00442	.00348	.00056	.00006	W 1.0570	.07529	-0.00030	-0.00035	.00044
Stddev	.00038	.009	.00106	.00033	.00041	.00001	.0037	.00493	.00009	.00003	.00009
%RSD	5.0957	.01875	23.994	9.5264	73.507	11.635	.35309	6.5477	30.806	7.5609	21.458

#1	-0.00782	47.867	-0.00517	.00371	.00085	.00007	1.0596	.07878	-0.00036	-0.00037	.00051
#2	-0.00728	47.880	-0.00367	.00324	.00027	.00006	1.0543	.07180	-0.00023	-0.00033	.00037

Check ?	None	Chk Pass	None	None	None	None	Chk Warn	None	None	None	None
Value							1.0000				
Range							5.0000%				

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00098	46.938	.09103	.00097	.05035	-0.00156	.00012	242.96	.00203	.00695	.00119
Stddev	.00060	.498	.02546	.00057	.00053	.00011	.00002	.85	.00027	.00103	.00068
%RSD	62.025	1.0603	27.963	58.458	1.0537	6.8872	19.099	.34975	13.289	14.846	56.985

#1	-0.00055	46.587	.10903	.00057	.05073	-0.00164	.00010	242.35	.00184	.00768	.00071
#2	-0.00140	47.290	.07303	.00137	.04998	-0.00149	.00013	243.56	.00222	.00622	.00167

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.2335	-0.01096	.01049	-0.03683	-0.07882	-0.00051	.00153	4.9278	-0.01204	-0.00032	10.309
Stddev	.0828	.00133	.00381	.01084	.02320	.00042	.00019	.0328	.00010	.00096	.188
%RSD	1.5823	12.154	36.376	29.432	29.432	81.880	12.539	.66465	.86889	300.07	1.8210

#1	5.2920	-.01190	.01318	-.04450	-.09522	-0.00021	.00166	4.9510	-.01197	-.00100	10.442
#2	5.1749	-.01002	.00779	-.02917	-.06241	-0.00080	.00139	4.9046	-.01212	.00036	10.176

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value											
Range											

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00299	-0.00041	-.12999
Stddev	.00067	.00027	.00208
%RSD	22.558	66.268	1.5995

#1	.00347	-.00060	-.13146
#2	.00251	-.00022	-.12852

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3126.3	55257.	6960.6
Stddev	4.3	421.	35.9
%RSD	.13602	.76208	.51598

#1	3123.3	54959.	6986.0
#2	3129.3	55555.	6935.2

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49718	F .56301	1.0101	.52974	.48496	.47023	-.00115	4.6996	.51847	.50050	.52983	.51082
Stddev	.00354	.00340	.0050	.00115	.00200	.00146	.00040	.0214	.00023	.00176	.00058	.00247
%RSD	.71290	.60330	.49590	.21725	.41301	.31029	34.854	.45513	.04422	.35092	.10954	.48407

#1	.49969	.56542	1.0136	.53056	.48355	.46920	-.00087	4.6844	.51864	.49926	.53024	.51257
#2	.49467	.56061	1.0066	.52893	.48638	.47127	-.00143	4.7147	.51831	.50174	.52942	.50907

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value		.50000										
Range		10.490%										

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3582	48.232	.98052	19.214	.49792	.49244	5.0803	.49270	1.0524	.98261	.04997	1.0439
Stddev	.0063	.157	.00501	.101	.00309	.00011	.0103	.00021	.0015	.00100	.00067	.0008
%RSD	.26745	.32553	.51064	.52353	.61997	.02212	.20238	.04307	.13958	.10146	1.3389	.08042

#1	2.3537	48.121	.97698	19.285	.50010	.49252	5.0730	.49285	1.0513	.98332	.05044	1.0445
#2	2.3626	48.343	.98406	19.143	.49573	.49236	5.0875	.49255	1.0534	.98191	.04949	1.0433

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0229	4.5640	9.7669	.99041	.48578	-.00013	.49699	1.0219	-.01283	.50677	.47312	.46819
Stddev	.0081	.0097	.0208	.00305	.00152	.00262	.00208	.0016	.03224	.00715	.00269	.00358
%RSD	.79033	.21304	.21304	.30766	.31287	2001.4	.41863	.15709	251.37	1.4112	.56866	.76429

#1	1.0172	4.5571	9.7521	.99257	.48470	.00172	.49846	1.0208	-.03563	.51183	.47502	.46566
#2	1.0286	4.5708	9.7816	.98826	.48685	-.00198	.49551	1.0231	.00997	.50172	.47121	.47072

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass				
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3196.5	56262.	6918.5
Stddev	5.4	266.	16.6
%RSD	.16915	.47225	.23941

#1	3200.3	56075.	6930.2
#2	3192.7	56450.	6906.7

Sample Name: CCB Acquired: 5/30/2015 23:14:54 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0003	-0.0004	-0.00167	.00129	.00019	.00007	-0.00098	.03771	.00010	.00020	.00005	-0.00107	.00255
Stddev	.00026	.00015	.00247	.00009	.00041	.00015	.00151	.05124	.00026	.00009	.00016	.00034	.00349
%RSD	809.19	327.88	148.12	7.2767	212.92	210.30	155.17	135.89	244.02	46.094	304.06	31.427	137.04

#1	.00015	-.00015	.00008	.00135	.00049	.00017	.00009	.07394	-.00008	.00014	.00016	-.00131	.00502
#2	-.00022	.00006	-.00342	.00122	-.00010	-.00003	-.00205	.00148	.00029	.00027	-.00006	-.00083	.00008

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.01813	.00115	-0.00157	-0.00005	.00045	.16302	-0.00032	-0.00005	.00079	.03785	-0.00109	-0.00310	-.02878
Stddev	.00625	.00037	.00040	.00004	.00021	.07845	.00023	.00046	.00029	.00391	.00100	.00087	.00332
%RSD	34.483	32.342	25.335	75.980	47.897	48.123	73.700	942.02	36.100	10.322	91.977	27.981	11.531

#1	-.02255	.00141	-.00129	-.00007	.00029	.21849	-.00048	-.00038	.00059	.04061	-.00038	-.00249	-.03112
#2	-.01371	.00089	-.00185	-.00002	.00060	.10755	-.00015	.00028	.00099	.03509	-.00180	-.00371	-.02643

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.06158	.00044	.00099	.00258	.00044	.00153	-0.02044	.00003	-0.00005	.00112
Stddev	.00710	.00107	.00132	.00105	.00005	.00145	.01173	.00031	.00027	.00127
%RSD	11.531	240.06	132.79	40.771	12.331	95.093	57.403	1234.2	541.85	113.76

#1	-.06660	.00120	.00192	.00183	.00048	.00256	-.02874	-.00020	.00014	.00202
#2	-.05656	-.00031	.00006	.00332	.00041	.00050	-.01214	.00025	-.00024	.00022

Check ?	Chk Pass									
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3198.3	56338.	6852.9
Stddev	3.9	295.	62.5
%RSD	.12226	.52417	.91275

#1	3195.5	56129.	6808.7
#2	3201.0	56547.	6897.1

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00988	.10836	.01386	.10698	.00977	.00089	.10665	.18873	.00525	.01044	.01073	.01467
Stddev	.00068	.00097	.00097	.00057	.00010	.00007	.00073	.00796	.00032	.00008	.00028	.00013
%RSD	6.9179	.89450	7.0321	.53610	1.0224	7.3698	.68791	4.2183	6.0676	.77984	2.5952	.91077

#1	.01036	.10767	.01317	.10739	.00970	.00093	.10717	.18310	.00547	.01038	.01093	.01457
#2	.00940	.10905	.01455	.10658	.00984	.00084	.10613	.19436	.00502	.01049	.01053	.01476

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09034	2.8972	.00941	.19641	.01030	.01997	1.0793	.04017	3.0318	.00830	.03097	.00933
Stddev	.00389	.0934	.00051	.00446	.00001	.00043	.0322	.00007	.0094	.00026	.00244	.00295
%RSD	4.3079	3.2226	5.4681	2.2694	.11714	2.1370	2.9835	.16507	.31033	3.1884	7.8906	31.671

#1	.08759	2.8311	.00905	.19956	.01031	.02027	1.0565	.04012	3.0384	.00811	.03270	.00724
#2	.09309	2.9632	.00977	.19326	.01029	.01967	1.1021	.04021	3.0251	.00849	.02925	.01142

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01859	.41959	.89793	.10044	.00996	.01787	.01000	.01528	F .02537	.01041	.02075	.01440
Stddev	.00435	.02646	.05662	.00141	.00018	.00131	.00039	.00344	.02450	.00064	.00039	.00191
%RSD	23.417	6.3053	6.3053	1.4003	1.8486	7.3100	3.9365	22.503	96.578	6.1208	1.8587	13.252

#1	.01551	.40088	.85789	.10143	.00983	.01879	.01028	.01771	.04269	.00996	.02048	.01305
#2	.02167	.43830	.93796	.09944	.01009	.01695	.00972	.01285	.00804	.01086	.02103	.01575

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass							
Value									.06000			
Range									-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3229.7	56901.	7021.1
Stddev	10.0	263.	126.3
%RSD	.31040	.46295	1.7988

#1	3236.7	56714.	7110.5
#2	3222.6	57087.	6931.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00026	.41327	-.00599	.03414	.01097	-.00011	.00130	494.30	-.00047
Stddev	.00023	.00001	.00013	.00082	.00005	.00004	.00287	.25	.00009
%RSD	87.936	.00204	2.2485	2.3971	.48049	40.107	220.49	.05036	19.736

#1	.00010	.41327	-.00608	.03356	.01101	-.00008	-.00073	494.12	-.00054
#2	.00043	.41326	-.00589	.03472	.01094	-.00014	.00333	494.47	-.00041

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00078	.00077	.00180	.39745	13.065	.06187	84.756	.04179	-.00234
Stddev	.00033	.00008	.00015	.00397	.044	.00051	.436	.00000	.00002
%RSD	41.645	10.696	8.2221	.99774	.33525	.83007	.51461	.00222	.97598

#1	-.00055	.00083	.00191	.39465	13.034	.06223	85.065	.04179	-.00233
#2	-.00102	.00071	.00170	.40026	13.096	.06150	84.448	.04179	-.00236

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	403.29	.00472	.09718	.00339	F 632.49	.00728	.07251	7.0690	15.128
Stddev	2.23	.00023	.00073	.00120	1.43	.00182	.00607	.0248	.053
%RSD	.55334	4.8153	.75577	35.432	.22676	24.976	8.3775	.35062	.35062

#1	404.87	.00489	.09770	.00254	633.51	.00600	.06822	7.0515	15.090
#2	401.72	.00456	.09666	.00423	631.48	.00857	.07681	7.0866	15.165

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00046	W 11.998	.00251	.01145	W -.01037	-.01452	-.00043	.00580	.00300
Stddev	.00357	.058	.00077	.00017	.00511	.00690	.00009	.00084	.00091
%RSD	775.57	.47949	30.749	1.4910	49.297	47.531	21.354	14.515	30.288

#1	-.00206	12.039	.00196	.01133	-.00675	-.01940	-.00049	.00520	.00236
#2	.00298	11.957	.00305	.01157	-.01398	-.00964	-.00036	.00639	.00364

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		5.0000			5.0000				
Low Limit		-.01000			-.01000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2933.3	52210.	6914.8
Stddev	7.3	11.	8.3
%RSD	.25024	.02053	.12060

#1	2938.5	52217.	6908.9
#2	2928.1	52202.	6920.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0034	.49330	.00212	.05707	.02222	-0.0003	.00264	399.34	-0.0061
Stddev	.00015	.00555	.00423	.00045	.00007	.00004	.00133	.24	.00019
%RSD	45.428	1.1251	199.41	.79699	.32003	112.77	50.140	.05907	30.403

#1	-0.0044	.48938	-0.0087	.05675	.02217	-0.0001	.00171	399.51	-0.0048
#2	-0.0023	.49723	.00511	.05739	.02227	-0.0006	.00358	399.17	-0.0074

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00015	.00068	.00033	.51914	5.9225	.01285	51.348	.09595	-0.0258
Stddev	.00030	.00000	.00011	.00806	.0494	.00072	.176	.00075	.00034
%RSD	200.13	.05822	32.579	1.5525	.83432	5.6322	.34324	.77928	13.026

#1	.00036	.00068	.00025	.51344	5.8875	.01234	51.473	.09648	-0.0234
#2	-0.0006	.00067	.00040	.52484	5.9574	.01337	51.223	.09543	-0.0281

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	111.52	.00348	.14426	.00204	F 432.94	.00324	.00744	10.804	23.121
Stddev	.67	.00017	.00095	.00092	3.26	.00248	.00070	.082	.176
%RSD	.59906	4.9880	.65997	45.148	.75264	76.700	9.4147	.75932	.75932

#1	112.00	.00336	.14494	.00139	430.64	.00148	.00694	10.746	22.997
#2	111.05	.00360	.14359	.00269	435.25	.00499	.00793	10.862	23.246

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0039	W 5.6767	.00186	.01483	W -.01153	-.02983	-.00021	.03158	.00280
Stddev	.00190	.1712	.00128	.00048	.00098	.01348	.00005	.00002	.00060
%RSD	487.50	3.0153	68.987	3.2451	8.4702	45.197	26.403	.07096	21.352

#1	.00096	5.7978	.00095	.01449	-0.01084	-.02030	-.00025	.03157	.00322
#2	-0.0174	5.5557	.00276	.01517	-0.01222	-.03936	-.00017	.03160	.00237

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		5.0000			5.0000				
Low Limit		-0.01000			-0.01000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2982.9	53745.	7035.1
Stddev	14.1	66.	31.8
%RSD	.47409	.12291	.45132

#1	2992.9	53792.	7012.7
#2	2972.9	53698.	7057.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0012	1.2554	-0.0064	.15417	.01636	.00003	.00193	364.49	-0.00053
Stddev	.00024	.0056	.00219	.00042	.00011	.00001	.00387	2.10	.00031
%RSD	206.60	.44347	32.953	.27101	.64788	38.665	200.59	.57720	58.215

#1	-0.0029	1.2593	-0.00818	.15446	.01643	.00002	-0.00081	365.98	-0.00031
#2	.00005	1.2514	-0.00509	.15387	.01628	.00003	.00467	363.00	-0.00075

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0059	.00104	.00408	.86380	3.6260	.03773	79.215	.01722	-0.00175
Stddev	.00040	.00004	.00065	.00061	.0099	.00058	.192	.00018	.00017
%RSD	68.448	3.8984	16.013	.07013	.27356	1.5323	.24281	1.0175	9.8506

#1	-0.0030	.00107	.00362	.86423	3.6190	.03732	79.079	.01710	-0.00187
#2	-0.00087	.00101	.00454	.86337	3.6330	.03814	79.351	.01735	-0.00163

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	497.26	.00302	.04135	.00311	F 671.01	.00514	.14940	11.498	24.607
Stddev	2.99	.00074	.00535	.00032	3.60	.00030	.00313	.009	.018
%RSD	.60119	24.484	12.939	10.185	.53685	5.8107	2.0960	.07484	.07484

#1	499.37	.00354	.04514	.00288	673.56	.00535	.15161	11.505	24.620
#2	495.14	.00249	.03757	.00333	668.46	.00493	.14719	11.492	24.594

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00044	W 10.141	.00056	.02682	W -.01101	.06651	.00016	.00780	.00397
Stddev	.00028	.008	.00058	.00161	.00313	.02416	.00020	.00060	.00029
%RSD	63.704	.07788	103.94	5.9935	28.479	36.322	126.28	7.7263	7.2236

#1	.00024	10.136	.00015	.02568	-0.00879	.04943	.00030	.00823	.00418
#2	.00063	10.147	.00097	.02796	-0.01322	.08359	.00002	.00738	.00377

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		5.0000			5.0000				
Low Limit		-0.1000			-0.1000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2933.5	52352.	7042.8
Stddev	8.6	129.	68.1
%RSD	.29189	.24549	.96705

#1	2939.6	52261.	6994.7
#2	2927.5	52443.	7091.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0010	.01188	-0.00334	.04031	.01400	-0.00006	-0.00086	302.68	-0.00049
Stddev	.00022	.00060	.00156	.00049	.00007	.00006	.00247	.48	.00004
%RSD	232.84	5.0593	46.758	1.2209	.51741	94.473	286.18	.15734	8.2457

#1	-0.0025	.01145	-0.00444	.03997	.01405	-0.00002	-0.00261	302.34	-0.00052
#2	.00006	.01230	-0.00224	.04066	.01395	-0.00010	.00088	303.02	-0.00046

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00049	.00106	.00040	.00936	4.3619	.00932	37.793	.00039	-0.00272
Stddev	.00012	.00041	.00054	.00040	.0491	.00003	.075	.00002	.00028
%RSD	23.544	38.803	137.79	4.2456	1.1248	.33715	.19866	4.5112	10.473

#1	-0.00041	.00077	.00001	.00964	4.3966	.00934	37.739	.00041	-0.00252
#2	-0.00057	.00135	.00078	.00908	4.3272	.00930	37.846	.00038	-0.00292

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	78.029	.00329	.03425	.00359	F 266.06	.00439	.01975	7.5091	16.069
Stddev	.209	.00039	.00442	.00013	.76	.00014	.00761	.0254	.054
%RSD	.26763	11.744	12.897	3.7457	.28434	3.1363	38.563	.33772	.33772

#1	78.176	.00302	.03113	.00349	266.60	.00429	.02513	7.5270	16.108
#2	77.881	.00357	.03738	.00368	265.53	.00449	.01436	7.4911	16.031

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00059	4.6221	.00189	.00045	-0.00905	-0.02354	-0.00087	.00412	.00269
Stddev	.00015	.0004	.00017	.00068	.00048	.00078	.00035	.00017	.00082
%RSD	26.075	.00984	8.8018	148.82	5.3282	3.3091	40.079	4.0134	30.538

#1	.00048	4.6224	.00177	-.00002	-0.00871	-.02409	-0.00112	.00400	.00211
#2	.00070	4.6218	.00201	.00093	-0.00940	-0.02299	-0.00063	.00423	.00328

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2960.8	54792.	7172.1
Stddev	19.0	116.	62.6
%RSD	.64184	.21243	.87265

#1	2974.2	54874.	7216.3
#2	2947.4	54709.	7127.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0005	.04961	-0.00150	.08823	.03315	-0.0006	-0.00023	244.98	-0.00036
Stddev	.00075	.00067	.00007	.00056	.00044	.00009	.00003	.71	.00012
%RSD	1434.7	1.3452	4.5563	.63370	1.3269	136.48	11.246	.28945	33.550

#1	-0.00058	.05008	-0.00145	.08863	.03346	.00000	-0.00025	245.48	-0.00028
#2	.00048	.04914	-0.00155	.08784	.03284	-0.00013	-0.00021	244.48	-0.00045

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0034	.00309	.00016	.05988	2.4774	.03528	33.144	.00077	.00272
Stddev	.00009	.00001	.00016	.00158	.0274	.00119	.016	.00006	.00040
%RSD	27.906	.41937	99.578	2.6326	1.1081	3.3612	.04676	7.9008	14.621

#1	-0.00027	.00308	.00005	.06099	2.4580	.03612	33.133	.00072	.00300
#2	-0.00040	.00309	.00027	.05876	2.4968	.03444	33.155	.00081	.00244

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	174.95	.00360	.03686	.00298	W 196.64	.00352	.00497	11.581	24.784
Stddev	.76	.00036	.00199	.00106	.23	.00221	.00008	.028	.060
%RSD	.43619	10.021	5.3901	35.640	.11819	62.695	1.6126	.24277	.24277

#1	175.49	.00335	.03546	.00223	196.80	.00196	.00503	11.601	24.827
#2	174.41	.00386	.03827	.00374	196.47	.00508	.00492	11.561	24.742

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					180.00				
Low Limit					-15000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00026	4.1006	.00092	.00074	W -.01012	-.00791	.00009	.00070	.00054
Stddev	.00066	.0153	.00251	.00039	.00121	.07464	.00011	.00015	.00145
%RSD	248.28	.37411	272.66	53.245	11.975	943.87	131.35	21.383	270.02

#1	-0.00020	4.1114	-0.00085	.00101	-0.01098	.04487	.00001	.00081	.00156
#2	.00073	4.0897	.00269	.00046	-0.00926	-0.06069	.00016	.00060	-0.00049

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000				
Low Limit					-0.1000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2926.2	52354.	6714.2
Stddev	3.9	245.	110.8
%RSD	.13277	.46771	1.6503

#1	2923.5	52527.	6635.8
#2	2929.0	52181.	6792.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.02535	-.00347	.04971	.01563	-.00009	.00140	266.17	-.00047
Stddev	.00018	.00030	.00207	.00045	.00034	.00006	.00008	.09	.00001
%RSD	1154.2	1.1961	59.604	.90721	2.1670	59.714	5.7327	.03536	2.1538

#1	-.00011	.02514	-.00201	.05003	.01587	-.00013	.00146	266.10	-.00047
#2	.00015	.02557	-.00493	.04939	.01540	-.00005	.00135	266.24	-.00048

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00036	.00171	.00062	.02174	6.2337	.01292	49.569	.00288	-.00319
Stddev	.00015	.00001	.00007	.00033	.0166	.00020	.300	.00005	.00059
%RSD	42.684	.83712	11.075	1.5066	.26639	1.5534	.60428	1.6047	18.627

#1	-.00047	.00172	.00057	.02197	6.2455	.01278	49.781	.00291	-.00277
#2	-.00025	.00170	.00067	.02151	6.2220	.01306	49.357	.00284	-.00361

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	235.21	.00290	.00621	.00363	F 327.83	.00397	.07792	3.8109	8.1553
Stddev	1.96	.00005	.00429	.00031	3.65	.00294	.00203	.0293	.0627
%RSD	.83430	1.6288	69.006	8.4027	1.1126	74.016	2.6074	.76830	.76830

#1	236.60	.00287	.00318	.00385	330.41	.00605	.07936	3.8316	8.1996
#2	233.82	.00293	.00924	.00342	325.25	.00189	.07648	3.7902	8.1110

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00076	W 6.3418	.00188	.00071	W -.01151	-.01620	-.00130	.00803	.00291
Stddev	.00091	.0192	.00021	.00048	.00174	.01653	.00014	.00020	.00002
%RSD	120.20	.30194	11.027	68.156	15.088	102.05	10.735	2.4463	.64909

#1	.00011	6.3553	.00203	.00037	-.01029	-.00451	-.00120	.00789	.00290
#2	.00140	6.3283	.00174	.00105	-.01274	-.02788	-.00140	.00817	.00292

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		5.0000			5.0000				
Low Limit		-.01000			-.01000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2943.9	52199.	6708.8
Stddev	4.3	122.	136.2
%RSD	.14698	.23433	2.0298

#1	2946.9	52112.	6612.5
#2	2940.8	52285.	6805.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0025	.00333	.02075	W 14.900	.27907	-0.0003	.00222	372.26	-0.0030
Stddev	.00027	.00068	.00799	.008	.00000	.00004	.00061	.69	.00016
%RSD	107.06	20.418	38.503	.05341	.00015	130.84	27.331	.18488	53.966

#1	-0.0044	.00381	.01510	14.894	.27907	-0.0006	.00264	371.78	-0.0019
#2	-0.0006	.00285	.02639	14.905	.27907	.00000	.00179	372.75	-0.0041

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.01000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00415	.01337	.00500	.25693	W 188.65	.14587	128.49	.13452	.04851
Stddev	.00002	.00005	.00078	.00103	.03	.00068	.21	.00021	.00011
%RSD	.45930	.34787	15.631	.40140	.01757	.46625	.16468	.15759	.22763

#1	.00414	.01334	.00555	.25766	188.63	.14635	128.34	.13467	.04859
#2	.00417	.01341	.00445	.25620	188.68	.14539	128.64	.13437	.04843

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1337.4	.04576	W 3.5250	-0.0040	F 262.11	.03197	.00498	22.703	48.585
Stddev	.7	.00026	.0339	.00115	.41	.00075	.00602	.091	.195
%RSD	.05393	.55803	.96057	286.13	.15665	2.3582	120.86	.40044	.40044

#1	1336.9	.04594	3.5011	.00041	262.40	.03251	.00924	22.639	48.447
#2	1337.9	.04558	3.5489	-.00121	261.82	.03144	.00072	22.767	48.722

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00		2.0000		200.00				
Low Limit	11.000		-1.0000		-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0091	4.1197	.00195	.00072	W -0.1171	-0.03183	.01485	.03694	.00219
Stddev	.00125	.0341	.00194	.00016	.00142	.00287	.00038	.00115	.00014
%RSD	137.54	.82731	99.672	22.160	12.148	9.0091	2.5835	3.1261	6.4700

#1	-0.0179	4.1438	.00332	.00083	-0.1070	-.02980	.01512	.03776	.00209
#2	-0.0002	4.0956	.00058	.00061	-0.1271	-.03386	.01458	.03612	.00229

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000				
Low Limit					-.01000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2754.3	48989.	6802.8
Stddev	5.8	79.	15.5
%RSD	.20977	.16149	.22786

#1	2758.4	48933.	6791.8
#2	2750.3	49045.	6813.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.16602	.06500	W 16.216	.92195	.00000	.00024	403.45	-.00019
Stddev	.00012	.00168	.00459	.048	.00177	.0001	.00285	2.92	.00030
%RSD	304.62	1.0121	7.0643	.29817	.19152	12662.	1180.0	.72312	159.18

#1	.00012	.16721	.06175	16.250	.92070	.00008	.00225	405.51	.00002
#2	-.00004	.16484	.06824	16.182	.92320	-.00008	-.00177	401.39	-.00041

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.01000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00565	.02715	.00771	25.632	W 197.80	.15651	140.08	1.1477	.05571
Stddev	.00046	.00001	.00037	.010	.04	.00052	.63	.0073	.00018
%RSD	8.1670	.03358	4.8281	.03822	.02045	.33165	.45127	.63510	.33006

#1	.00533	.02714	.00745	25.639	197.77	.15614	139.64	1.1425	.05584
#2	.00598	.02716	.00797	25.625	197.83	.15687	140.53	1.1528	.05558

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-.50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1194.3	.04908	1.1751	.00012	F 275.88	.03441	.00928	25.076	53.663
Stddev	.6	.00028	.0004	.00001	1.03	.00158	.00224	.090	.192
%RSD	.04925	.57638	.03801	5.6478	.37374	4.5818	24.159	.35724	.35724

#1	1194.7	.04888	1.1748	.00011	276.61	.03330	.01086	25.140	53.799
#2	1193.8	.04928	1.1754	.00012	275.15	.03553	.00769	25.013	53.528

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00				200.00				
Low Limit	11.000				-.20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00226	4.6631	.00390	.02565	-.00980	-.03027	.01946	.03007	.00177
Stddev	.00025	.0083	.00113	.00015	.00030	.00444	.00022	.00147	.00106
%RSD	10.967	.17723	29.031	.58289	3.0914	14.675	1.1451	4.8839	59.575

#1	.00209	4.6689	.00310	.02555	-.00958	-.03341	.01930	.02903	.00103
#2	.00244	4.6572	.00470	.02576	-.01001	-.02713	.01961	.03111	.00252

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2681.7	47918.	6729.4
Stddev	.3	341.	16.3
%RSD	.01112	.71194	.24152

#1	2681.5	48159.	6717.9
#2	2681.9	47677.	6740.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00018	.14912	.09591	W 20.210	2.5486	-0.0012	.00034	474.49	-0.00062
Stddev	.00063	.00017	.00154	.013	.0425	.00003	.00068	1.05	.00003
%RSD	342.14	.11338	1.6025	.06379	1.6675	27.223	197.56	.22217	4.0697

#1	.00063	.14900	.09482	20.201	2.5786	-0.0010	-0.0014	473.75	-0.0064
#2	-.00026	.14924	.09699	20.219	2.5185	-0.0015	.00082	475.24	-0.0060

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.01000					

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00687	.03512	.00904	47.315	W 446.45	.20897	177.69	1.9522	.04536
Stddev	.00056	.00049	.00073	.175	6.79	.00130	.27	.0041	.00003
%RSD	8.1170	1.4092	8.1095	.37017	1.5210	.62003	.14978	.21191	.07500

#1	.00727	.03547	.00852	47.439	451.25	.20988	177.88	1.9551	.04539
#2	.00648	.03477	.00955	47.191	441.64	.20805	177.50	1.9492	.04534

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-.50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2154.2	.05279	.87627	.00032	F 251.65	.05049	.00633	29.203	62.494
Stddev	27.4	.00063	.00927	.00260	.18	.00134	.00060	.671	1.436
%RSD	1.2728	1.1985	1.0574	806.13	.07337	2.6525	9.5429	2.2974	2.2974

#1	2173.6	.05324	.88282	-.00152	251.79	.04954	.00590	29.677	63.509
#2	2134.8	.05234	.86972	.00216	251.52	.05144	.00675	28.728	61.479

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00				200.00				
Low Limit	11.000				-.20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00408	W 6.2250	.00538	.02825	W -.01338	W -.07935	.01493	.01937	.00119
Stddev	.00172	.0881	.00178	.00004	.00184	.00992	.00088	.00043	.00196
%RSD	42.152	1.4159	33.026	.12551	13.746	12.508	5.8625	2.2098	163.90

#1	.00286	6.1627	.00412	.02822	-.01468	-.07233	.01431	.01967	.00258
#2	.00530	6.2873	.00663	.02827	-.01208	-.08636	.01555	.01907	-.00019

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit		5.0000			5.0000	45.000			
Low Limit		-.01000			-.01000	-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2532.7	44730.	6407.1
Stddev	9.2	37.	38.3
%RSD	.36160	.08376	.59793

#1	2539.2	44757.	6434.2
#2	2526.2	44704.	6380.0

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00738	50.248	-0.00331	.03111	.00084	.00007	W 1.0788	.04744	-0.00009	-0.00021	.00052
Stddev	.00050	.429	.00794	.00266	.00002	.00002	.0077	.00531	.00012	.00024	.00009
%RSD	6.7611	.85358	239.72	8.5474	2.0691	35.637	.71143	11.192	134.25	114.17	16.700

#1	-0.00702	49.945	-0.00892	.03299	.00082	.00008	1.0842	.05120	.00000	-0.00039	.00058
#2	-0.00773	50.552	.00230	.02923	.00085	.00005	1.0733	.04369	-0.00018	-0.00004	.00046

Check ?	None	Chk Pass	None	None	None	None	Chk Warn	None	None	None	None
Value							1.0000				
Range							5.0000%				

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00175	48.590	.39592	.00038	.05659	-0.00164	-0.00054	254.12	.00223	.00868	.00117
Stddev	.00025	.413	.01332	.00210	.00709	.00015	.00009	.11	.00019	.00102	.00099
%RSD	13.994	.84921	3.3648	551.00	12.535	9.2088	17.083	.04521	8.3965	11.755	85.032

#1	-0.00192	48.298	.40534	.00187	.06161	-0.00153	-0.00047	254.04	.00236	.00940	.00047
#2	-0.00158	48.881	.38650	-0.00111	.05158	-0.00175	-0.00060	254.20	.00209	.00796	.00187

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 5.2863	-0.01047	.00788	-0.00081	-0.00174	-0.00151	.00052	5.1638	-0.01268	.00140	W 10.826
Stddev	.0453	.00292	.00326	.00676	.01446	.00040	.00004	.0175	.00061	.00280	.025
%RSD	.85761	27.927	41.413	829.04	829.04	26.878	8.5982	.33947	4.7925	200.13	.23431

#1	5.3184	-.01254	.01019	.00396	.00848	-0.00179	.00049	5.1762	-.01311	.00338	10.808
#2	5.2542	-.00840	.00558	-.00559	-.01197	-0.00122	.00055	5.1514	-.01225	-.00058	10.844

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value	5.0000										10.000
Range	5.0000%										5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00345	-.00062	-.13687
Stddev	.00025	.00052	.00297
%RSD	7.2741	83.398	2.1673

#1	.00363	-.00099	-.13897
#2	.00328	-.00026	-.13478

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2960.1	51793.	6556.7
Stddev	9.8	125.	6.5
%RSD	.33257	.24148	.09874

#1	2953.2	51705.	6552.2
#2	2967.1	51882.	6561.3

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49400	.54510	1.0391	F .55829	.49508	.47824	-.00058	4.7882	.52711	.51657	.52038	.50855
Stddev	.00007	.00070	.0128	.00337	.00169	.00035	.00083	.0014	.00193	.00257	.00037	.00164
%RSD	.01368	.12804	1.2284	.60305	.34178	.07367	143.99	.02928	.36683	.49730	.07026	.32247

#1	.49404	.54461	1.0301	.55591	.49628	.47849	.00001	4.7892	.52574	.51476	.52012	.50971
#2	.49395	.54560	1.0481	.56067	.49388	.47799	-.00117	4.7872	.52848	.51839	.52064	.50739

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass				
Value				.50000								
Range				10.490%								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3844	49.495	1.0124	19.246	.51466	.51083	F 5.7183	.50825	1.0820	1.0009	.07570	1.0525
Stddev	.0079	.044	.0014	.054	.00063	.00254	.0130	.00307	.0074	.0069	.02213	.0012
%RSD	.33288	.08959	.13873	.28001	.12316	.49694	.22673	.60326	.68769	.68615	29.236	.11431

#1	2.3900	49.464	1.0114	19.284	.51421	.50904	5.7091	.50608	1.0767	.99603	.09135	1.0516
#2	2.3787	49.527	1.0134	19.208	.51511	.51263	5.7274	.51042	1.0872	1.0057	.06005	1.0533

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass					
Value							5.0000					
Range							10.490%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0244	4.8084	10.290	1.0085	.49599	-.00036	.51467	1.0195	-.00357	.52468	.49101	.47909
Stddev	.0083	.0265	.057	.0077	.00059	.00070	.00012	.0074	.01227	.00537	.00142	.00168
%RSD	.81385	.55051	.55051	.76580	.11978	192.40	.02394	.72484	344.22	1.0226	.28924	.35079

#1	1.0185	4.7896	10.250	1.0030	.49641	.00013	.51476	1.0143	-.01224	.52848	.49000	.47790
#2	1.0303	4.8271	10.330	1.0139	.49557	-.00086	.51458	1.0247	.00511	.52089	.49201	.48028

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass				
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3022.1	53183.	6744.8
Stddev	16.2	50.	7.2
%RSD	.53484	.09354	.10681

#1	3033.5	53218.	6739.7
#2	3010.6	53148.	6749.9

Sample Name: CCB Acquired: 5/30/2015 23:53:33 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00020	.00131	-.00021	.01638	.00005	.00007	.00002	.00236	-.00019	.00039	.00008	-.00131	-.00078
Stddev	.00020	.00148	.00024	.00133	.00031	.00000	.00025	.00294	.00010	.00013	.00007	.00016	.00054
%RSD	103.51	113.15	115.87	8.0970	617.45	1.2886	1092.6	124.81	54.348	32.463	97.448	12.425	69.744

#1	.00005	.00026	-.00004	.01544	.00027	.00007	.00020	.00028	-.00026	.00047	.00002	-.00119	-.00039
#2	.00034	.00236	-.00038	.01731	-.00017	.00007	-.00015	.00443	-.00011	.00030	.00013	-.00143	-.00116

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.12580	-.00008	.00157	-.00003	.00021	.36351	.00024	.00223	.00065	.07218	-.00060	-.00024	-.00174
Stddev	.00102	.00172	.00084	.00006	.00021	.00684	.00037	.00126	.00120	.03122	.00023	.00210	.00481
%RSD	.81310	2209.3	53.692	203.80	96.100	1.8823	153.07	56.592	183.95	43.256	39.306	867.10	276.71

#1	.12652	.00114	.00097	.00001	.00036	.36834	.00050	.00312	-.00020	.05011	-.00043	.00124	.00166
#2	.12507	-.00130	.00216	-.00007	.00007	.35867	-.00002	.00134	.00150	.09426	-.00076	-.00173	-.00514

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00372	.00000	.00009	.00159	.00016	-.00067	-.02397	.00021	.00037	.00182
Stddev	.01030	.00001	.00002	.00205	.00050	.00097	.00617	.00051	.00061	.00149
%RSD	276.71	306.10	26.808	129.04	303.05	145.13	25.755	242.33	163.81	81.632

#1	.00356	.00001	.00007	.00304	-.00019	-.00136	-.01961	-.00015	-.00006	.00288
#2	-.01101	.00000	.00011	.00014	.00052	.00002	-.02834	.00057	.00080	.00077

Check ?	Chk Pass									
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3055.9	54605.	6757.2
Stddev	5.0	413.	7.9
%RSD	.16490	.75586	.11729

#1	3059.4	54313.	6762.8
#2	3052.3	54896.	6751.6

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00927	.11102	.01136	.12183	.01013	.00097	.10802	.19252	.00533	.01070	.01071	.01457
Stddev	.00009	.00003	.00397	.00222	.00014	.00002	.00051	.00270	.00015	.00031	.00005	.00001
%RSD	.97824	.03104	34.963	1.8235	1.4067	2.1550	.46959	1.4012	2.7324	2.9339	.50106	.06208

#1	.00933	.11104	.01417	.12340	.01023	.00096	.10838	.19062	.00543	.01092	.01075	.01456
#2	.00921	.11100	.00855	.12026	.01003	.00099	.10766	.19443	.00523	.01048	.01067	.01458

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09310	3.1607	.00991	.20488	.01076	.02106	F 1.3565	.04205	3.1610	.00906	.05098	.00989
Stddev	.00005	.0049	.00008	.00332	.00008	.00056	.0027	.00001	.0241	.00058	.00546	.00220
%RSD	.05741	.15465	.84167	1.6214	.78315	2.6352	.19516	.01740	.76330	6.4019	10.712	22.291

#1	.09306	3.1572	.00997	.20253	.01070	.02146	1.3584	.04206	3.1780	.00865	.05485	.00833
#2	.09314	3.1641	.00985	.20723	.01082	.02067	1.3546	.04205	3.1439	.00947	.04712	.01145

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass					
Value							1.0000					
Range							30.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01559	.46020	.98483	.10426	.01021	.01664	.01071	.01835	.06132	.01118	.02194	.01488
Stddev	.00105	.00391	.00837	.00202	.00005	.00126	.00036	.00237	.02457	.00024	.00069	.00110
%RSD	6.7212	.84958	.84958	1.9358	.51411	7.6005	3.3307	12.919	40.073	2.1187	3.1249	7.4179

#1	.01633	.45744	.97891	.10569	.01017	.01754	.01045	.01667	.04394	.01135	.02145	.01410
#2	.01485	.46296	.99074	.10283	.01025	.01575	.01096	.02003	.07869	.01101	.02242	.01566

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3051.2	54131.	6735.1
Stddev	5.9	233.	64.8
%RSD	.19403	.42967	.96203

#1	3047.0	54295.	6689.3
#2	3055.4	53966.	6780.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0015	.00409	-0.00208	.01080	.00007	.00003	-0.00226	.01603	-0.00019
Stddev	.00002	.00031	.00073	.00114	.00018	.00004	.00091	.01037	.00005
%RSD	16.277	7.4716	35.028	10.524	250.60	124.17	40.354	64.704	25.868

#1	-0.0013	.00430	-0.0156	.01160	-0.0005	.00000	-0.0162	.00870	-0.0016
#2	-0.0017	.00387	-0.0259	.00999	.00020	.00006	-0.0291	.02337	-0.0023

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00031	.00004	-0.00090	.00690	.09103	-0.00073	-0.00051	.00009	.00024
Stddev	.00008	.00038	.00025	.00049	.03110	.00033	.00534	.00006	.00002
%RSD	26.620	904.93	27.309	7.0736	34.169	44.553	1056.7	61.306	7.2571

#1	.00025	.00031	-0.0108	.00655	.11303	-0.00096	.00327	.00013	.00023
#2	.00036	-0.00022	-0.00073	.00724	.06904	-0.00050	-0.00428	.00005	.00025

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.30772	-0.00096	.00332	-0.00064	.04161	-0.00117	-0.00177	-0.03517	-0.07526
Stddev	.01433	.00038	.00176	.00016	.00456	.00140	.00201	.00961	.02057
%RSD	4.6558	39.961	53.158	24.817	10.947	120.08	113.38	27.326	27.326

#1	.29759	-0.00069	.00207	-0.00053	.04483	-0.00018	-0.00320	-.04197	-.08981
#2	.31785	-0.00123	.00456	-0.00075	.03839	-0.00216	-0.00035	-.02837	-.06072

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00081	.00011	.00029	.00026	.00044	-0.01880	.00003	.00165	.00219
Stddev	.00035	.00001	.00325	.00031	.00171	.01343	.00035	.00112	.00014
%RSD	43.423	12.456	1123.0	119.77	385.18	71.453	1165.2	67.839	6.4057

#1	.00106	.00010	-0.00201	.00048	.00165	-0.00930	.00028	.00086	.00209
#2	.00056	.00012	.00259	.00004	-0.00076	-0.02830	-0.00022	.00244	.00229

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3095.2	55076.	6812.3
Stddev	4.4	312.	6.9
%RSD	.14098	.56706	.10158

#1	3092.1	55297.	6817.2
#2	3098.2	54855.	6807.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04560	2.0385	1.0496	F 1.1133	2.0049	.04830	2.1063	46.552	.10755
Stddev	.00006	.0144	.0031	.0059	.0077	.00018	.0101	.084	.00024
%RSD	.13483	.70479	.29297	.53384	.38414	.36236	.48010	.17995	.22102

#1	.04564	2.0284	1.0474	1.1091	2.0103	.04843	2.0991	46.612	.10738
#2	.04555	2.0487	1.0518	1.1175	1.9994	.04818	2.1134	46.493	.10772

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit				1.1050					
Low Limit				.86000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50897	F .20298	.25743	.94645	50.451	1.0260	47.798	.51039	1.0641
Stddev	.00318	.00060	.00033	.00587	.002	.0044	.005	.00028	.0037
%RSD	.62431	.29718	.12848	.62044	.00384	.43126	.01120	.05420	.34634

#1	.50673	.20341	.25719	.94229	50.452	1.0291	47.802	.51020	1.0614
#2	.51122	.20256	.25766	.95060	50.449	1.0228	47.794	.51059	1.0667

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	53.984	.50213	F 11.178	.50471	2.1370	W .54995	2.1272	9.4402	20.202
Stddev	.513	.00131	.032	.00149	.0098	.00254	.0162	.0873	.187
%RSD	.95065	.26018	.29034	.29546	.45661	.46136	.76365	.92504	.92504

#1	53.621	.50121	11.155	.50366	2.1301	.54816	2.1157	9.3785	20.070
#2	54.346	.50306	11.201	.50577	2.1439	.55174	2.1387	9.5020	20.334

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Warn	Chk Pass	Chk Pass	None
High Limit			11.100			.54000			
Low Limit			9.1000			.44000			

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0335	1.0043	1.0318	1.0260	2.0352	2.1487	.52415	.47542	.45781
Stddev	.0057	.0038	.0012	.0008	.0117	.0203	.00131	.00085	.00482
%RSD	.27908	.37652	.11558	.07289	.57285	.94450	.25068	.17860	1.0534

#1	2.0295	1.0069	1.0327	1.0255	2.0270	2.1631	.52322	.47482	.45440
#2	2.0375	1.0016	1.0310	1.0266	2.0434	2.1344	.52508	.47602	.46122

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2954.4	53048.	6742.1
Stddev	28.9	79.	53.8
%RSD	.97944	.14921	.79737

#1	2974.9	53104.	6780.1
#2	2933.9	52992.	6704.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04482	2.0142	1.0334	1.0937	1.9615	.04707	F 2.0812	45.673	.10554
Stddev	.00006	.0028	.0001	.0015	.0004	.00003	.0063	.002	.00011
%RSD	.14259	.13767	.00594	.13541	.02121	.05455	.30481	.00448	.10741

#1	.04477	2.0122	1.0334	1.0948	1.9618	.04705	2.0856	45.671	.10562
#2	.04486	2.0161	1.0335	1.0927	1.9612	.04709	2.0767	45.674	.10546

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49984	W .19921	.25090	.93187	49.509	1.0024	47.191	.50453	1.0523
Stddev	.00010	.00029	.00380	.00250	.080	.0004	.347	.00409	.0011
%RSD	.02044	.14679	1.5133	.26794	.16069	.04531	.73620	.81091	.10464

#1	.49977	.19941	.24822	.93364	49.566	1.0021	46.945	.50164	1.0531
#2	.49991	.19900	.25359	.93011	49.453	1.0027	47.436	.50743	1.0516

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	53.535	.49298	W 10.993	.49982	2.1151	.54490	2.1039	9.3593	20.029
Stddev	.116	.00111	.023	.00169	.0055	.00507	.0050	.0486	.104
%RSD	.21680	.22425	.20782	.33795	.25784	.93108	.23963	.51891	.51891

#1	53.617	.49220	11.009	.50101	2.1190	.54849	2.1003	9.3249	19.955
#2	53.453	.49376	10.977	.49863	2.1113	.54131	2.1074	9.3936	20.102

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2.0115	.98160	1.0172	1.0170	2.0094	2.1250	.51745	.47444	.45372
Stddev	.0014	.00012	.0123	.0099	.0010	.0016	.00266	.00370	.00632
%RSD	.06765	.01198	1.2090	.97572	.04845	.07371	.51380	.78089	1.3933

#1	2.0124	.98152	1.0085	1.0100	2.0088	2.1261	.51557	.47182	.44925
#2	2.0105	.98168	1.0259	1.0240	2.0101	2.1239	.51933	.47706	.45819

Check ?	Chk Warn	Chk Pass							
High Limit	2.0000								
Low Limit	-.05000								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2946.0	52267.	6625.5
Stddev	6.1	379.	13.3
%RSD	.20596	.72585	.20033

#1	2950.3	52535.	6616.1
#2	2941.7	51999.	6634.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00028	.05837	.01348	W 15.578	.35199	-0.0008	-0.0010	398.63	-0.0068
Stddev	.00041	.00068	.00084	.010	.00020	.00010	.00055	2.85	.00025
%RSD	145.80	1.1713	6.2573	.06711	.05609	125.53	545.79	.71556	37.142

#1	-0.0001	.05788	.01288	15.586	.35213	-0.0015	-0.0049	400.65	-0.0086
#2	.00057	.05885	.01407	15.571	.35185	-0.0001	.00029	396.61	-0.0050

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.01000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00411	.01538	.00246	1.3952	W 200.21	.15787	137.24	.11216	.04522
Stddev	.00014	.00026	.00027	.0008	.04	.00005	.05	.00031	.00036
%RSD	3.3971	1.6587	11.000	.05717	.02034	.03364	.03440	.27913	.79899

#1	.00401	.01520	.00227	1.3947	200.24	.15783	137.21	.11194	.04497
#2	.00421	.01556	.00265	1.3958	200.19	.15791	137.28	.11239	.04548

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1470.0	.04646	W 2.3953	.00001	F 266.80	.03426	.00272	23.852	51.042
Stddev	.7	.00039	.0043	.00204	.05	.00457	.00038	.119	.254
%RSD	.04426	.83780	.18153	18260.	.01951	13.341	14.109	.49748	.49748

#1	1470.4	.04674	2.3983	-.00143	266.84	.03750	.00245	23.768	50.863
#2	1469.5	.04619	2.3922	.00145	266.77	.03103	.00299	23.936	51.222

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00		2.0000		200.00				
Low Limit	11.000		-1.0000		-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0112	4.4404	.00253	.00638	W -0.1069	W -0.05492	.00298	.08338	.00292
Stddev	.00163	.0034	.00248	.00011	.00090	.06292	.00016	.00118	.00089
%RSD	145.74	.07577	98.139	1.7679	8.4082	114.55	5.5319	1.4184	30.427

#1	.00003	4.4428	.00428	.00630	-0.1133	-0.09941	.00309	.08422	.00355
#2	-0.00227	4.4380	.00077	.00646	-0.1006	-0.1043	.00286	.08255	.00230

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000	45.000			
Low Limit					-0.1000	-0.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2640.7	46545.	6389.3
Stddev	5.2	98.	53.0
%RSD	.19799	.20971	.82939

#1	2637.0	46614.	6426.7
#2	2644.4	46476.	6351.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0059	.01230	.00381	3.3188	.07243	.00005	.00185	82.171	-0.00006
Stddev	.00002	.00079	.00538	.0121	.00038	.00005	.00146	.363	.00014
%RSD	2.8451	6.4251	141.35	.36609	.53013	86.161	78.995	.44168	229.59

#1	-0.00060	.01174	.00000	3.3102	.07216	.00009	.00288	81.915	.00004
#2	-0.00058	.01286	.00761	3.3274	.07270	.00002	.00082	82.428	-.00017

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00069	.00371	-0.0018	.28423	39.503	.02879	28.276	.02277	.00789
Stddev	.00032	.00015	.00027	.00534	.245	.00230	.132	.00017	.00008
%RSD	46.293	4.0096	148.24	1.8784	.62116	7.9773	.46705	.73359	1.0540

#1	.00047	.00382	-.00037	.28045	39.329	.02717	28.182	.02265	.00795
#2	.00092	.00361	.00001	.28800	39.676	.03042	28.369	.02288	.00783

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	292.86	.01250	.46630	.00535	51.989	.00620	.00387	4.6087	9.8626
Stddev	.70	.00020	.00034	.00052	.222	.00139	.00015	.0503	.1076
%RSD	.23970	1.5634	.07215	9.8110	.42711	22.481	3.9198	1.0907	1.0907

#1	292.36	.01236	.46607	.00572	51.832	.00719	.00397	4.5731	9.7865
#2	293.35	.01264	.46654	.00498	52.146	.00521	.00376	4.6442	9.9386

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00200	.89564	.00070	.00123	-.00914	-.02437	.00070	.01759	.00142
Stddev	.00098	.00356	.00064	.00011	.00118	.03987	.00057	.00021	.00056
%RSD	48.975	.39779	91.209	8.5478	12.957	163.62	80.404	1.2118	39.323

#1	.00270	.89312	.00025	.00130	-.00997	.00383	.00110	.01774	.00102
#2	.00131	.89816	.00116	.00115	-.00830	-.05256	.00030	.01744	.00181

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2902.7	51574.	6615.8
Stddev	.0	61.	17.5
%RSD	.00083	.11756	.26525

#1	2902.7	51617.	6628.2
#2	2902.7	51531.	6603.4

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04854	1.8816	W 2.7314	1.1060	W 16.012	2.3082	.04653	F 2.0935	425.77
Stddev	.00033	.0073	.0526	.0002	.026	.0024	.00019	.0040	2.25
%RSD	.67584	.38880	1.9248	.01446	.16136	.10245	.41019	.19190	.52958

#1	.04877	1.8868	2.7686	1.1061	16.030	2.3099	.04640	2.0964	424.17
#2	.04831	1.8765	2.6942	1.1059	15.994	2.3065	.04667	2.0907	427.36

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00		10.000			.10000	
Low Limit			3.2000		-.01000			-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10922	.47230	W .18858	.26200	2.1870	W 242.30	1.2033	174.49	.58933
Stddev	.00016	.00021	.00115	.00116	.0004	.65	.0040	.60	.00181
%RSD	.14301	.04381	.60823	.44403	.01997	.26781	.32806	.34440	.30794

#1	.10933	.47215	.18939	.26283	2.1867	242.76	1.2061	174.91	.59062
#2	.10911	.47244	.18777	.26118	2.1873	241.84	1.2005	174.06	.58805

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit			.10000			100.00			
Low Limit			-.01000			-.50000			

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0690	W 1462.7	.49782	W 14.079	.44598	F 259.57	.59604	2.2363	29.401
Stddev	.0008	1.1	.00099	.035	.00159	.78	.00145	.0156	.058
%RSD	.07629	.07711	.19842	.24514	.35709	.30035	.24291	.69652	.19818

#1	1.0685	1463.5	.49852	14.104	.44711	260.12	.59706	2.2473	29.442
#2	1.0696	1461.9	.49712	14.055	.44485	259.02	.59501	2.2253	29.360

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		500.00		2.0000		200.00			
Low Limit		11.000		-1.0000		-.20000			

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	62.918	1.8713	W 5.1487	1.0151	1.0149	1.6507	2.0405	.52152	.52664
Stddev	.125	.0100	.2253	.0002	.0017	.0047	.0099	.00068	.00269
%RSD	.19818	.53430	4.3748	.01873	.17090	.28508	.48505	.12978	.51070

#1	63.007	1.8784	4.9895	1.0152	1.0161	1.6474	2.0335	.52104	.52474
#2	62.830	1.8642	5.3080	1.0149	1.0136	1.6540	2.0475	.52200	.52854

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			5.0000						
Low Limit			-.01000						

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.43880
Stddev	.00228
%RSD	.52069

#1	.44042
#2	.43719

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69781-N-1-B MS Acquired: 5/31/2015 0:11:49 Type: Unk

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment: 279411 6010B

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2659.0	47345.	6488.1
Stddev	5.5	197.	12.1
%RSD	.20560	.41672	.18659
#1	2662.9	47206.	6496.7
#2	2655.1	47485.	6479.6

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04950	1.9020	W 2.8002	1.1374	W 16.888	2.3635	.04723	F 2.1444	442.12
Stddev	.00052	.0086	.0302	.0055	.044	.0179	.00046	.0070	3.00
%RSD	1.0547	.45256	1.0800	.48536	.26228	.75878	.97309	.32657	.67871

#1	.04987	1.8960	2.7788	1.1335	16.857	2.3762	.04755	2.1395	439.99
#2	.04913	1.9081	2.8216	1.1413	16.920	2.3508	.04690	2.1494	444.24

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00		10.000			.10000	
Low Limit			3.2000		-.01000			-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.11059	.47883	W .19355	.26812	2.2658	W 253.31	1.2365	179.96	.59711
Stddev	.00050	.00088	.00015	.00021	.0024	1.45	.0104	.82	.00119
%RSD	.44800	.18391	.07656	.07824	.10537	.57147	.83996	.45558	.19912

#1	.11024	.47821	.19366	.26827	2.2641	254.33	1.2438	180.53	.59796
#2	.11095	.47945	.19345	.26797	2.2675	252.29	1.2292	179.38	.59627

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit			.10000			100.00			
Low Limit			-.01000			-.50000			

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0947	W 1542.4	.50521	W 14.418	.45035	F 274.07	.61354	2.2714	30.583
Stddev	.0009	9.2	.00115	.048	.00215	.45	.00266	.0076	.081
%RSD	.08459	.59879	.22674	.33582	.47739	.16480	.43393	.33550	.26612

#1	1.0941	1549.0	.50440	14.384	.44883	273.75	.61166	2.2660	30.640
#2	1.0954	1535.9	.50602	14.453	.45187	274.39	.61542	2.2768	30.525

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		500.00		2.0000		200.00			
Low Limit		11.000		-1.0000		-.20000			

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	65.447	1.8816	W 5.4662	1.0308	1.0320	1.6601	2.1107	.52683	.52545
Stddev	.174	.0032	.0422	.0046	.0013	.0064	.0438	.00065	.00341
%RSD	.26612	.17060	.77270	.44348	.12534	.38452	2.0759	.12425	.64857

#1	65.570	1.8838	5.4363	1.0341	1.0329	1.6556	2.1417	.52729	.52786
#2	65.324	1.8793	5.4961	1.0276	1.0311	1.6646	2.0797	.52637	.52304

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			5.0000						
Low Limit			-.01000						

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.44976
Stddev	.00372
%RSD	.82627

#1	.45239
#2	.44714

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69781-N-1-C MSD Acquired: 5/31/2015 0:14:54 Type: Unk

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment: 279411 6010B

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2674.0	47805.	6634.7
Stddev	5.1	173.	28.8
%RSD	.19215	.36223	.43380
#1	2677.7	47682.	6655.1
#2	2670.4	47927.	6614.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0003	.04615	.01810	W 15.615	.36941	.00000	.00184	382.22	-0.00038
Stddev	.00019	.00052	.00170	.025	.00247	.00008	.00246	6.54	.00017
%RSD	653.93	1.1205	9.4137	.15864	.66758	5953.6	134.03	1.7118	44.855

#1	.00010	.04651	.01689	15.598	.37115	.00006	.00010	386.85	-.00026
#2	-.00016	.04578	.01930	15.633	.36766	-.00006	.00358	377.59	-.00050

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.01000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00405	.01558	.00169	1.2949	W 194.90	.15364	131.40	.10233	.04332
Stddev	.00002	.00006	.00024	.0046	1.18	.00145	.20	.00060	.00021
%RSD	.54414	.37414	14.503	.35147	.60741	.94481	.14941	.58528	.48621

#1	.00407	.01562	.00151	1.2917	195.73	.15467	131.54	.10190	.04347
#2	.00404	.01554	.00186	1.2981	194.06	.15261	131.27	.10275	.04317

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-.50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1400.4	.04565	1.7385	.00179	F 265.45	.03730	.00964	22.445	48.032
Stddev	8.5	.00043	.0076	.00151	.67	.00016	.00131	.126	.269
%RSD	.60723	.94452	.43712	84.443	.25255	.41707	13.640	.56100	.56100

#1	1406.4	.04534	1.7331	.00072	264.98	.03719	.01057	22.356	47.842
#2	1394.4	.04595	1.7439	.00286	265.93	.03741	.00871	22.534	48.223

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00				200.00				
Low Limit	11.000				-.20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00071	4.3575	.00282	.00429	W -.01055	W -.05832	.00372	.03371	.00191
Stddev	.00181	.0165	.00101	.00019	.00148	.00408	.00056	.00109	.00037
%RSD	255.18	.37821	35.740	4.4267	14.008	6.9920	15.025	3.2314	19.336

#1	.00199	4.3459	.00211	.00442	-.01159	-.06120	.00332	.03294	.00165
#2	-.00057	4.3692	.00353	.00415	-.00950	-.05543	.00411	.03448	.00218

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000	45.000			
Low Limit					-.01000	-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2662.2	47890.	6680.5
Stddev	2.5	48.	49.4
%RSD	.09342	.09999	.73917

#1	2660.5	47924.	6645.6
#2	2664.0	47857.	6715.4

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00696	49.386	-0.00099	.04002	.00106	.00021	W 1.0818	.26914	.00000	-0.00041	.00065
Stddev	.00022	.410	.00015	.00201	.00013	.00003	.0060	.10687	.00002	.00015	.00005
%RSD	3.1967	.83095	14.891	5.0114	11.879	12.647	.55441	39.708	448.81	37.397	7.7206

#1	-0.00680	49.676	-0.00110	.04144	.00097	.00023	1.0775	.34471	-0.00001	-0.00030	.00062
#2	-0.00711	49.096	-0.00089	.03860	.00115	.00019	1.0860	.19357	.00002	-0.00051	.00069

Check ?	None	Chk Pass	None	None	None	None	Chk Warn	None	None	None	None
Value							1.0000				
Range							5.0000%				

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00202	47.649	.54916	.00170	.13137	-0.00141	-0.00038	256.26	.00250	.00772	.00168
Stddev	.00033	.029	.05019	.00011	.08335	.00031	.00035	.31	.00024	.00064	.00134
%RSD	16.163	.06091	9.1401	6.1963	63.446	22.127	91.582	.12266	9.7040	8.3136	79.581

#1	-0.00225	47.669	.58465	.00162	.19030	-0.00119	-0.00013	256.49	.00267	.00726	.00073
#2	-0.00179	47.628	.51367	.00177	.07243	-0.00163	-0.00062	256.04	.00233	.00817	.00263

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 5.3378	-0.01284	.00675	.00886	.01896	-0.00055	.00301	5.1025	-0.01209	.00149	W 10.774
Stddev	.0324	.00110	.00478	.03502	.07494	.00048	.00121	.0327	.00052	.00015	.083
%RSD	.60702	8.5874	70.843	395.16	395.16	86.469	40.157	.64096	4.3197	9.7298	.76639

#1	5.3149	-.01206	.01014	.03362	.07195	-0.00021	.00386	5.0794	-.01173	.00139	10.832
#2	5.3608	-.01362	.00337	-.01590	-.03403	-0.00089	.00215	5.1257	-.01246	.00160	10.715

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value	5.0000										10.000
Range	5.0000%										5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00378	-0.00061	-.13647
Stddev	.00024	.00148	.00158
%RSD	6.4361	244.02	1.1604

#1	.00361	.00044	-.13535
#2	.00395	-.00165	-.13759

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2971.5	52833.	6742.0
Stddev	12.3	358.	.0
%RSD	.41475	.67849	.00060

#1	2962.8	53086.	6742.0
#2	2980.3	52579.	6742.1

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50037	F .56961	1.0435	F .57112	.49576	.47575	.00132	4.6944	.53489	.51778	.51866	.52079
Stddev	.00067	.02037	.0172	.00487	.00181	.00162	.00101	.0047	.00064	.00505	.00408	.00121
%RSD	.13301	3.5763	1.6466	.85195	.36515	.33999	75.946	.09961	.11969	.97570	.78677	.23194

#1	.50084	.55521	1.0313	.56768	.49704	.47690	.00061	4.6977	.53443	.51421	.51577	.52165
#2	.49990	.58402	1.0556	.57456	.49448	.47461	.00203	4.6911	.53534	.52135	.52154	.51994

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		.50000		.50000								
Range		10.490%		10.490%								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3728	49.729	1.0179	19.265	.51410	.51189	F 5.8490	.51015	1.0820	1.0058	.06081	1.0685
Stddev	.0427	.027	.0007	.021	.00110	.00540	.3755	.00456	.0084	.0098	.00006	.0079
%RSD	1.7990	.05499	.07227	.11094	.21357	1.0545	6.4197	.89421	.77308	.97586	.09752	.73726

#1	2.4029	49.749	1.0184	19.280	.51488	.50807	6.1145	.50692	1.0761	.99889	.06086	1.0629
#2	2.3426	49.710	1.0174	19.250	.51332	.51570	5.5835	.51337	1.0879	1.0128	.06077	1.0740

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass					
Value							5.0000					
Range							10.490%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0409	4.6140	9.8740	1.0161	.49639	-.00025	.51536	1.0300	.01109	.52525	.48598	.47636
Stddev	.0008	.0283	.0606	.0091	.00128	.00419	.00133	.0089	.02164	.00371	.00237	.00248
%RSD	.08133	.61395	.61395	.89147	.25726	1673.5	.25860	.86036	195.08	.70645	.48788	.52166

#1	1.0415	4.5940	9.8312	1.0097	.49729	-.00321	.51630	1.0237	.02639	.52262	.48766	.47460
#2	1.0403	4.6341	9.9169	1.0225	.49549	.00271	.51441	1.0363	-.00421	.52787	.48430	.47811

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass				
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3009.2	53723.	6751.7
Stddev	5.6	112.	30.9
%RSD	.18695	.20775	.45735

#1	3013.2	53644.	6773.5
#2	3005.2	53802.	6729.9

Sample Name: CCB Acquired: 5/31/2015 0:27:12 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0001	.01164	.00347	.02231	.00019	.00023	.00106	.00860	.00005	.00026	.00006	-.00104
Stddev	.00018	.00257	.00379	.00047	.00039	.00023	.00261	.00700	.00018	.00011	.00004	.00005
%RSD	2926.1	22.039	109.30	2.1098	210.95	102.20	245.90	81.417	361.70	42.035	66.031	5.1895

#1	.00012	.01345	.00079	.02265	.00046	.00039	-.00078	.01355	.00018	.00018	.00009	-.00100
#2	-.00014	.00983	.00614	.02198	-.00009	.00006	.00291	.00365	-.00008	.00034	.00003	-.00108

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01141	.20042	-.00002	-.00227	-.00006	.00036	F .52467	-.00008	.00079	.00068	.04107	.00025
Stddev	.01577	.03072	.00036	.00026	.00001	.00012	.11762	.00042	.00070	.00085	.00251	.00082
%RSD	138.22	15.329	1721.6	11.655	25.859	33.423	22.418	521.41	88.909	125.25	6.1014	333.85

#1	.02256	.22215	.00023	-.00209	-.00005	.00028	.60784	.00022	.00129	.00008	.04284	.00082
#2	.00026	.17870	-.00027	-.00246	-.00007	.00045	.44149	-.00038	.00029	.00128	.03930	-.00033

Check ?	Chk Pass	Chk Fail	Chk Pass									
High Limit							.50000					
Low Limit							-.50000					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00007	-.02197	-.04702	.00042	.00025	.00251	.00067	.00052	-.02412	-.00004	-.00027	.00186
Stddev	.00182	.01098	.02350	.00027	.00030	.00103	.00003	.00253	.02218	.00018	.00069	.00049
%RSD	2646.7	49.990	49.990	64.275	121.52	41.081	3.9367	487.62	91.963	470.02	253.56	26.407

#1	.00136	-.01420	-.03040	.00023	.00046	.00178	.00069	.00231	-.00844	.00009	-.00075	.00221
#2	-.00122	-.02974	-.06364	.00061	.00003	.00324	.00065	-.00127	-.03980	-.00016	.00021	.00151

Check ?	Chk Pass											
High Limit												
Low Limit												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3024.5	53921.	6708.3
Stddev	4.9	158.	9.8
%RSD	.16147	.29374	.14596

#1	3028.0	53809.	6715.2
#2	3021.1	54033.	6701.4

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01000	.11379	.01351	F .13239	.01070	.00125	.11200	.24741	.00547	.01100	.01075	.01510
Stddev	.00030	.00066	.00048	.00081	.00059	.00019	.00207	.07459	.00006	.00025	.00002	.00002
%RSD	3.0088	.57954	3.5807	.61469	5.5148	15.015	1.8463	30.149	1.1457	2.2974	.22120	.10818

#1	.01021	.11332	.01385	.13182	.01028	.00111	.11054	.19467	.00543	.01117	.01077	.01511
#2	.00979	.11425	.01317	.13297	.01111	.00138	.11346	.30016	.00552	.01082	.01073	.01509

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass							
Value				.10000								
Range				30.000%								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10970	3.2665	.01159	.20562	.01084	.02031	F 1.6634	.04232	3.2253	.00842	.04673	.00736
Stddev	.02332	.0846	.00073	.00084	.00012	.00000	.3100	.00033	.0116	.00161	.00180	.00283
%RSD	21.256	2.5906	6.2602	.40837	1.0780	.02180	18.637	.79027	.35895	19.173	3.8452	38.447

#1	.09321	3.2066	.01107	.20622	.01093	.02031	1.4442	.04255	3.2171	.00956	.04546	.00536
#2	.12619	3.3263	.01210	.20503	.01076	.02030	1.8826	.04208	3.2334	.00728	.04800	.00936

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass					
Value							1.0000					
Range							30.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01780	.44386	.94985	.10531	.01116	.01896	.01065	.01500	F .03068	.01129	.02083	.01530
Stddev	.00240	.01966	.04208	.00140	.00129	.00065	.00048	.00161	.00879	.00017	.00012	.00031
%RSD	13.486	4.4302	4.4302	1.3275	11.545	3.4465	4.5261	10.742	28.654	1.4862	.57707	2.0069

#1	.01949	.42995	.92010	.10432	.01025	.01850	.01100	.01386	.03690	.01117	.02092	.01551
#2	.01610	.45776	.97961	.10630	.01208	.01942	.01031	.01614	.02446	.01141	.02075	.01508

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass							
Value									.06000			
Range									-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3017.7	53883.	6717.1
Stddev	3.9	65.	139.5
%RSD	.12982	.12143	2.0771

#1	3020.5	53836.	6815.7
#2	3014.9	53929.	6618.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00007	.00402	.00063	F .01666	.00042	.00003	-0.00234	.01906	-0.00009
Stddev	.00042	.00171	.00686	.00075	.00015	.00017	.00068	.00694	.00005
%RSD	581.30	42.605	1085.2	4.5264	34.378	566.23	29.153	36.392	53.647

#1	.00037	.00523	.00548	.01720	.00032	-0.00009	-0.00282	.02397	-0.00005
#2	-0.00022	.00281	-0.00422	.01613	.00053	.00015	-0.00185	.01416	-0.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				.01000					
Low Limit				-.01000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00008	F -.00014	-0.00134	.00965	.14631	-0.00130	.00489	.00007	.00027
Stddev	.00026	.00011	.00034	.00206	.03065	.00065	.00293	.00007	.00013
%RSD	329.73	78.095	25.409	21.339	20.949	50.085	59.798	97.428	49.526

#1	-0.00027	-0.00022	-0.00159	.01111	.16798	-0.00176	.00282	.00012	.00037
#2	.00011	-0.00006	-0.00110	.00820	.12463	-0.00084	.00696	.00002	.00018

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.01000							
Low Limit		-.00010							

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .43100	-0.00014	.00291	-0.00118	F .03820	-0.00282	-0.00044	F -.02106	-0.04506
Stddev	.03991	.00010	.00493	.00091	.00677	.00097	.00044	.02045	.04376
%RSD	9.2603	72.952	169.61	77.776	17.730	34.590	99.084	97.104	97.104

#1	.45923	-0.00007	.00639	-0.00053	.04299	-0.00213	-0.00076	-.03551	-.07600
#2	.40278	-0.00021	-0.00058	-0.00182	.03341	-0.00351	-0.00013	-0.00660	-0.01412

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	None
High Limit	.05054				.01000			.01000	
Low Limit	-.50000				-.01000			-.01000	

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00037	.00029	W .00216	.00007	-0.00034	-0.00426	-0.00030	.00144	.00134
Stddev	.00144	.00011	.00117	.00015	.00111	.02582	.00027	.00003	.00141
%RSD	390.45	36.411	54.354	207.34	326.79	606.78	92.632	1.8581	105.61

#1	.00139	.00037	.00299	.00018	.00045	.01400	-0.00010	.00146	.00234
#2	-0.00065	.00022	.00133	-0.00003	-0.00113	-0.02252	-0.00049	.00143	.00034

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.00000						
Low Limit			-.00500						

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3047.2	54722.	6764.9
Stddev	2.4	107.	7.5
%RSD	.07918	.19521	.11111

#1	3048.9	54646.	6759.6
#2	3045.5	54798.	6770.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04550	2.0123	1.0452	F 1.1140	1.9980	.04748	2.1204	45.708	.10662
Stddev	.00035	.0070	.0024	.0035	.0113	.00041	.0025	.326	.00068
%RSD	.76561	.34842	.22814	.31311	.56517	.86722	.11816	.71236	.63439

#1	.04525	2.0173	1.0469	1.1165	1.9900	.04719	2.1222	45.478	.10710
#2	.04575	2.0074	1.0435	1.1115	2.0059	.04777	2.1187	45.938	.10614

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit				1.1050					
Low Limit				.86000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50650	F .20241	.25790	.97736	50.312	1.0258	47.816	.51025	1.0640
Stddev	.00248	.00010	.00036	.00166	.312	.0021	.088	.00118	.0022
%RSD	.48928	.04824	.14068	.16934	.62041	.19999	.18392	.23067	.21119

#1	.50826	.20234	.25765	.97853	50.091	1.0243	47.878	.50942	1.0656
#2	.50475	.20248	.25816	.97619	50.532	1.0272	47.754	.51108	1.0624

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	54.223	.49818	F 11.130	.50443	2.1366	W .55226	2.1298	9.2074	19.704
Stddev	.350	.00203	.018	.00255	.0156	.00709	.0060	.0227	.049
%RSD	.64641	.40679	.16597	.50646	.73058	1.2841	.28418	.24685	.24685

#1	54.471	.49961	11.143	.50623	2.1476	.55728	2.1341	9.2235	19.738
#2	53.975	.49675	11.117	.50262	2.1255	.54725	2.1255	9.1913	19.669

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Warn	Chk Pass	Chk Pass	None
High Limit			11.100			.54000			
Low Limit			9.1000			.44000			

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0321	.99672	1.0406	1.0304	2.0333	2.1593	.52472	.47109	.44834
Stddev	.0106	.00580	.0034	.0022	.0060	.0290	.00021	.00220	.00257
%RSD	.52016	.58164	.33046	.21826	.29576	1.3433	.03933	.46697	.57270

#1	2.0396	.99262	1.0381	1.0288	2.0375	2.1388	.52457	.47265	.45015
#2	2.0246	1.0008	1.0430	1.0320	2.0290	2.1798	.52486	.46954	.44652

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2953.9	52654.	6693.2
Stddev	13.5	129.	57.7
%RSD	.45642	.24529	.86246

#1	2944.4	52745.	6734.0
#2	2963.4	52563.	6652.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04579	2.0450	1.0644	F 1.1400	2.0267	.04832	2.1637	46.543	.10902
Stddev	.00065	.0019	.0039	.0022	.0042	.00023	.0023	.003	.00031
%RSD	1.4146	.09124	.36251	.19541	.20583	.48109	.10649	.00629	.28466

#1	.04533	2.0437	1.0616	1.1384	2.0296	.04848	2.1620	46.545	.10880
#2	.04625	2.0463	1.0671	1.1415	2.0237	.04815	2.1653	46.541	.10924

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit				1.1050					
Low Limit				.86000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51388	F .20581	.26204	.93586	51.139	1.0409	48.312	.51731	1.0832
Stddev	.00137	.00056	.00041	.00828	.077	.0008	.179	.00288	.0038
%RSD	.26655	.27421	.15507	.88492	.15046	.07416	.37019	.55664	.35329

#1	.51291	.20621	.26175	.93001	51.194	1.0404	48.438	.51935	1.0805
#2	.51485	.20541	.26232	.94172	51.085	1.0415	48.185	.51527	1.0859

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	54.988	.50655	F 11.382	.51349	2.1877	F .56353	2.1846	9.4355	20.192
Stddev	.220	.00120	.019	.00023	.0095	.00209	.0072	.0488	.104
%RSD	.40087	.23704	.16533	.04505	.43288	.37147	.33069	.51717	.51717

#1	54.832	.50570	11.368	.51333	2.1810	.56205	2.1795	9.4010	20.118
#2	55.144	.50740	11.395	.51365	2.1944	.56501	2.1897	9.4700	20.266

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Fail	Chk Pass	Chk Pass	None
High Limit			11.100			.55499			
Low Limit			9.1000			.44000			

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0703	1.0131	1.0509	1.0451	2.0783	2.2080	.53304	.47828	.45656
Stddev	.0060	.0023	.0037	.0028	.0019	.0277	.00233	.00431	.00410
%RSD	.29006	.23144	.35345	.26908	.08929	1.2559	.43736	.90159	.89854

#1	2.0660	1.0147	1.0535	1.0471	2.0796	2.1883	.53469	.48133	.45366
#2	2.0745	1.0114	1.0483	1.0431	2.0770	2.2276	.53139	.47524	.45946

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2963.9	53067.	6660.6
Stddev	7.0	88.	33.9
%RSD	.23694	.16534	.50966

#1	2968.9	53005.	6636.6
#2	2959.0	53129.	6684.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0043	.06000	.01787	W 16.350	.36400	.00001	.00014	398.32	-0.00036
Stddev	.00011	.00351	.00013	.043	.00281	.00001	.00377	5.78	.00022
%RSD	24.386	5.8451	.74530	.26159	.77267	171.96	2733.0	1.4506	59.784

#1	-0.00036	.06248	.01777	16.320	.36599	.00002	.00281	402.41	-0.00052
#2	-0.00051	.05752	.01796	16.380	.36201	.00000	-.00253	394.24	-0.00021

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.01000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00407	.01592	.00332	1.3884	W 205.39	.16497	138.39	.11308	.04774
Stddev	.00044	.00004	.00006	.0095	1.47	.00316	1.14	.00010	.00060
%RSD	10.700	.25041	1.7812	.68727	.71330	1.9149	.82016	.08498	1.2547

#1	.00437	.01595	.00336	1.3951	206.43	.16720	137.58	.11314	.04816
#2	.00376	.01590	.00328	1.3817	204.36	.16273	139.19	.11301	.04731

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-.50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1511.4	.04709	W 2.4990	.00134	F 280.59	.03575	.01073	23.997	51.353
Stddev	5.5	.00030	.0001	.00081	.54	.00037	.00160	.067	.144
%RSD	.36558	.63908	.00613	60.772	.19336	1.0320	14.942	.28039	.28039

#1	1515.3	.04730	2.4991	.00191	280.21	.03601	.00960	24.044	51.454
#2	1507.4	.04687	2.4989	.00076	280.98	.03549	.01186	23.949	51.251

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00		2.0000		200.00				
Low Limit	11.000		-1.0000		-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00038	4.4868	.00229	.00697	-.00764	-.00975	.00479	.08234	.00178
Stddev	.00330	.0123	.00110	.00138	.00047	.01546	.00068	.00072	.00072
%RSD	860.67	.27372	48.033	19.829	6.2015	158.58	14.293	.86897	40.738

#1	.00272	4.4955	.00306	.00795	-.00730	.00118	.00527	.08284	.00127
#2	-.00195	4.4781	.00151	.00599	-.00797	-.02067	.00430	.08183	.00229

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2663.8	47689.	6587.6
Stddev	1.9	223.	32.7
%RSD	.07070	.46698	.49633

#1	2662.5	47847.	6564.5
#2	2665.1	47532.	6610.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0051	.01465	.00524	3.4305	.07423	.00000	.00253	82.767	-0.00006
Stddev	.00014	.00060	.00194	.0139	.00031	.00010	.00362	.044	.00009
%RSD	28.252	4.1030	37.095	.40639	.42126	2438.8	143.08	.05277	163.82

#1	-0.00040	.01423	.00386	3.4404	.07400	-0.00007	-0.00003	82.736	.00001
#2	-0.00061	.01508	.00661	3.4207	.07445	.00007	.00508	82.797	-0.00012

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00087	.00414	.00033	.28193	40.509	.03174	28.858	.02322	.00812
Stddev	.00015	.00005	.00003	.00045	.138	.00070	.000	.00024	.00006
%RSD	17.627	1.1069	9.7774	.15989	.34091	2.2207	.00083	1.0376	.79179

#1	.00076	.00417	.00031	.28225	40.411	.03224	28.858	.02305	.00807
#2	.00098	.00411	.00035	.28161	40.606	.03124	28.858	.02339	.00817

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	301.27	.01287	.49057	.00289	53.637	.00554	.00472	4.6652	9.9836
Stddev	.67	.00012	.00199	.00147	.233	.00221	.00551	.0096	.0205
%RSD	.22215	.92796	.40534	50.986	.43354	39.905	116.59	.20586	.20586

#1	300.80	.01296	.49197	.00393	53.802	.00710	.00862	4.6720	9.9981
#2	301.74	.01279	.48916	.00185	53.473	.00398	.00083	4.6584	9.9690

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00157	.91804	-0.00017	.00133	-0.00699	-0.01352	.00000	.01720	.00192
Stddev	.00068	.00187	.00247	.00036	.00092	.00981	.0006	.00030	.00088
%RSD	43.371	.20383	1419.6	27.326	13.099	72.528	20024.	1.7671	46.000

#1	.00109	.91672	-0.00192	.00107	-0.00635	-0.00659	.00042	.01699	.00254
#2	.00205	.91936	.00157	.00158	-0.00764	-0.02045	-0.00043	.01742	.00129

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2908.4	51910.	6786.4
Stddev	5.7	253.	5.1
%RSD	.19505	.48712	.07547

#1	2904.4	52088.	6790.0
#2	2912.4	51731.	6782.8

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05049	1.9099	W 2.8097	1.1576	W 17.397	2.3606	.04672	F 2.2039	430.78
Stddev	.00047	.0029	.0171	.0012	.033	.0144	.00009	.0062	5.47
%RSD	.92769	.15428	.60718	.10130	.18856	.61134	.18317	.27991	1.2698

#1	.05083	1.9120	2.7976	1.1585	17.373	2.3504	.04666	2.2082	426.91
#2	.05016	1.9078	2.8217	1.1568	17.420	2.3708	.04678	2.1995	434.65

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00		10.000			.10000	
Low Limit			3.2000		-.01000			-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.11345	.48469	W .19348	.27057	2.2199	W 254.36	1.2419	181.76	.60665
Stddev	.00016	.00069	.00035	.00080	.0015	1.76	.0094	.01	.00003
%RSD	.14359	.14226	.17834	.29416	.06833	.69103	.75739	.00287	.00555

#1	.11334	.48518	.19372	.27001	2.2210	253.12	1.2352	181.76	.60663
#2	.11357	.48420	.19323	.27113	2.2188	255.61	1.2485	181.77	.60668

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit			.10000			100.00			
Low Limit			-.01000			-.50000			

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.1012	W 1553.2	.51237	W 14.815	.45749	F 281.21	.62301	2.3329	30.244
Stddev	.0013	6.7	.00159	.039	.00006	.37	.00061	.0081	.223
%RSD	.11723	.43238	.31010	.26372	.01288	.13263	.09761	.34850	.73723

#1	1.1002	1548.4	.51125	14.788	.45745	280.95	.62258	2.3272	30.087
#2	1.1021	1557.9	.51350	14.843	.45754	281.48	.62344	2.3387	30.402

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		500.00		2.0000		200.00			
Low Limit		11.000		-1.0000		-.20000			

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	64.723	1.9046	W 5.4506	1.0475	1.0374	1.6937	2.1136	.53806	.52667
Stddev	.477	.0104	.0611	.0005	.0003	.0016	.0247	.00085	.00297
%RSD	.73723	.54527	1.1213	.04505	.02475	.09497	1.1680	.15745	.56417

#1	64.385	1.8972	5.4073	1.0478	1.0376	1.6949	2.1310	.53866	.52457
#2	65.060	1.9119	5.4938	1.0472	1.0372	1.6926	2.0961	.53746	.52877

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			5.0000						
Low Limit			-.01000						

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.44104
Stddev	.00556
%RSD	1.2610

#1	.43711
#2	.44497

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69781-N-1-E MS Acquired: 5/31/2015 0:45:31 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: broanderl Prep Date: Custom ID2: Custom ID3:
Comment: 279426 200.7

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2645.3	47819.	6718.5
Stddev	6.5	187.	15.3
%RSD	.24487	.39025	.22747
#1	2649.9	47951.	6729.3
#2	2640.7	47687.	6707.7

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04991	1.9143	W 2.8117	1.1566	W 17.370	2.3796	.04699	F 2.1828	437.10
Stddev	.00030	.0038	.0029	.0000	.046	.0096	.00005	.0011	3.60
%RSD	.60826	.19708	.10295	.00123	.26298	.40323	.10352	.05006	.82462

#1	.05012	1.9170	2.8138	1.1566	17.402	2.3863	.04703	2.1836	439.64
#2	.04970	1.9116	2.8097	1.1566	17.338	2.3728	.04696	2.1820	434.55

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00		10.000			.10000	
Low Limit			3.2000		-.01000			-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.11290	.48680	W .19302	.27431	2.2297	W 256.99	1.2523	183.62	.60921
Stddev	.00024	.00034	.00003	.00065	.0124	.88	.0033	.14	.00129
%RSD	.20820	.07033	.01650	.23539	.55404	.34244	.26556	.07856	.21134

#1	.11306	.48656	.19305	.27477	2.2385	257.61	1.2547	183.72	.60830
#2	.11273	.48704	.19300	.27385	2.2210	256.37	1.2500	183.52	.61012

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit			.10000			100.00			
Low Limit			-.01000			-.50000			

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.1062	W 1575.6	.51346	W 14.733	.45980	F 281.43	.62469	2.3302	30.462
Stddev	.0002	6.0	.00046	.038	.00109	.47	.00012	.0006	.143
%RSD	.02146	.38045	.09001	.25933	.23608	.16638	.01916	.02464	.47048

#1	1.1063	1579.8	.51379	14.760	.46057	281.77	.62460	2.3298	30.564
#2	1.1060	1571.4	.51313	14.706	.45904	281.10	.62477	2.3306	30.361

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		500.00		2.0000		200.00			
Low Limit		11.000		-1.0000		-.20000			

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	65.189	1.9251	W 5.5115	1.0486	1.0449	1.7025	2.1212	.53662	.52778
Stddev	.307	.0016	.0468	.0008	.0010	.0003	.0160	.00215	.00008
%RSD	.47048	.08338	.84870	.07475	.09076	.01708	.75328	.40009	.01441

#1	65.406	1.9240	5.4784	1.0491	1.0456	1.7023	2.1099	.53510	.52772
#2	64.972	1.9263	5.5446	1.0480	1.0442	1.7027	2.1325	.53814	.52783

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			5.0000						
Low Limit			-.01000						

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.44379
Stddev	.00295
%RSD	.66392

#1	.44588
#2	.44171

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69781-N-1-F MSD Acquired: 5/31/2015 0:48:35 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: broanderl Prep Date: Custom ID2: Custom ID3:
Comment: 279426 200.7

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2633.3	47384.	6635.4
Stddev	2.0	130.	58.8
%RSD	.07650	.27427	.88639
#1	2631.9	47476.	6593.8
#2	2634.7	47292.	6677.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0024	.04523	.01151	W 15.493	.36597	.00006	-0.00176	372.79	-0.00030
Stddev	.00039	.00147	.00035	.009	.00104	.00009	.00065	3.81	.00032
%RSD	165.16	3.2511	3.0358	.05877	.28397	144.87	37.233	1.0222	107.54

#1	.00004	.04627	.01126	15.499	.36523	.00013	-.00129	370.09	-.00053
#2	-.00051	.04419	.01175	15.486	.36670	.00000	-.00222	375.48	-.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.01000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00388	.01566	.00249	1.2578	W 194.07	.15278	130.63	.10139	.04236
Stddev	.00004	.00009	.00029	.0035	.25	.00069	.45	.00026	.00032
%RSD	.99669	.54852	11.574	.27934	.13025	.45397	.34371	.26102	.75443

#1	.00391	.01560	.00229	1.2553	193.89	.15229	130.94	.10121	.04259
#2	.00386	.01573	.00269	1.2603	194.25	.15327	130.31	.10158	.04214

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-.50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1394.9	.04477	1.7271	-0.0025	F 262.87	.03313	.00167	22.099	47.291
Stddev	3.1	.00085	.0060	.00401	.64	.00523	.00058	.085	.182
%RSD	.22532	1.8968	.35026	1625.0	.24222	15.773	34.577	.38401	.38401

#1	1392.7	.04537	1.7228	.00259	263.32	.02943	.00208	22.039	47.162
#2	1397.1	.04416	1.7314	-.00309	262.42	.03682	.00126	22.159	47.419

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00				200.00				
Low Limit	11.000				-.20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00122	4.3030	.00328	.00492	-0.00660	-0.02989	.00276	.03318	.00275
Stddev	.00081	.0091	.00170	.00038	.00135	.01489	.00025	.00120	.00059
%RSD	66.280	.21076	51.972	7.7091	20.522	49.837	9.1594	3.6040	21.463

#1	.00179	4.2966	.00207	.00465	-.00756	-.01935	.00294	.03234	.00233
#2	.00065	4.3094	.00448	.00519	-.00564	-.04042	.00259	.03403	.00317

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2732.4	48931.	6728.8
Stddev	2.9	236.	13.0
%RSD	.10510	.48314	.19326

#1	2734.4	48764.	6719.6
#2	2730.4	49098.	6738.0

Sample Name: CCVH-3294468 Acquired: 5/31/2015 0:55:42 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00713	47.169	.00290	.03974	.00081	.00020	1.0307	.23621	-0.00004	-0.00031	.00073	-.00257	45.377
Stddev	.00016	.137	.00303	.00232	.00020	.00012	.0117	.05954	.00022	.00008	.00005	.00001	.040
%RSD	2.2989	.29048	104.35	5.8318	25.290	58.580	1.1317	25.208	563.93	26.459	7.2176	.31739	.08746

#1	-0.00724	47.266	.00504	.04138	.00095	.00029	1.0225	.27831	-0.00020	-0.00025	.00076	-.00256	45.349
#2	-0.00701	47.072	.00076	.03810	.00066	.00012	1.0390	.19410	.00012	-0.00037	.00069	-.00257	45.405

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51453	-0.00012	.08063	-0.00161	-0.00049	244.43	.00228	.01169	.00194	5.0379	-.01032	.00714	.00111
Stddev	.03010	.00020	.00503	.00009	.00057	.45	.00050	.00112	.00064	.0523	.00144	.00264	.01835
%RSD	5.8494	163.08	6.2439	5.5253	115.77	.18212	22.082	9.5994	32.988	1.0381	13.990	36.933	1658.4

#1	.53582	.00002	.08419	-.00168	-.00009	244.74	.00264	.01090	.00239	5.0009	-.01134	.00527	.01408
#2	.49325	-.00027	.07707	-.00155	-.00089	244.11	.00192	.01248	.00149	5.0748	-.00930	.00900	-.01187

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00237	-0.00209	.00258	4.8876	-0.01102	.00070	10.427	.00323	-0.00022	-.13237
Stddev	.03927	.00029	.00053	.0193	.00059	.00084	.064	.00005	.00059	.00112
%RSD	1658.4	14.057	20.497	.39596	5.3337	120.73	.61763	1.6257	264.89	.84705

#1	.03014	-.00188	.00295	4.8739	-.01060	.00129	10.472	.00319	.00019	-.13158
#2	-.02540	-.00230	.00220	4.9013	-.01143	.00010	10.381	.00327	-.00064	-.13316

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3076.8	54873.	6934.6
Stddev	10.0	80.	17.2
%RSD	.32511	.14599	.24864

#1	3069.7	54930.	6922.4
#2	3083.9	54816.	6946.7

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47718	.53978	1.0207	F .56819	.47493	.45108	-.00014	F 4.4319	.52116	.50579	.52281	.49799
Stddev	.00186	.00334	.0027	.00215	.00058	.00040	.00355	.0119	.00354	.00027	.00106	.00084
%RSD	.39010	.61786	.26713	.37884	.12288	.08775	2591.2	.26946	.67946	.05436	.20255	.16952

#1	.47586	.54214	1.0226	.56971	.47534	.45136	.00238	4.4404	.52367	.50599	.52206	.49739
#2	.47849	.53742	1.0188	.56667	.47451	.45080	-.00265	4.4235	.51866	.50560	.52356	.49859

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				.50000				5.0000				
Range				10.490%				-10.490%				

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 2.2118	47.907	.98282	18.327	.49462	.50067	5.4572	.49787	1.0756	.97910	.04575	1.0577
Stddev	.0076	.039	.00317	.044	.00135	.00041	.0104	.00097	.0024	.00386	.00169	.0030
%RSD	.34540	.08235	.32301	.23863	.27235	.08254	.19086	.19551	.22781	.39465	3.6988	.28594

#1	2.2064	47.879	.98506	18.296	.49367	.50038	5.4499	.49856	1.0738	.97637	.04695	1.0598
#2	2.2172	47.935	.98057	18.358	.49557	.50096	5.4646	.49718	1.0773	.98183	.04455	1.0555

Check ?	Chk Fail	Chk Pass	None	Chk Pass								
Value	2.5000											
Range	-10.490%											

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0252	F 4.3789	F 9.3708	.98935	.47542	.00400	.49563	1.0138	.00480	.50678	.46579	.45524
Stddev	.0038	.0004	.0009	.00423	.00019	.00239	.00063	.0045	.00407	.00561	.00304	.00187
%RSD	.37221	.00928	.00928	.42751	.04096	59.844	.12737	.43965	84.866	1.1076	.65283	.41064

#1	1.0225	4.3792	9.3714	.99234	.47555	.00569	.49608	1.0169	.00767	.51075	.46364	.45656
#2	1.0279	4.3786	9.3702	.98636	.47528	.00230	.49519	1.0106	.00192	.50281	.46794	.45391

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value		5.0000	10.700									
Range		-10.490%	-10.490%									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3107.6	55460.	7042.0
Stddev	15.4	56.	25.0
%RSD	.49632	.10034	.35460

#1	3096.7	55420.	7024.4
#2	3118.5	55499.	7059.7

Sample Name: CCB Acquired: 5/31/2015 1:00:52 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0003	.00091	.00207	.02470	.00075	.00090	.00030	.01141	-0.00015	.00049	-0.00004	-0.00114	.00479
Stddev	.00006	.00063	.00310	.00023	.00007	.00015	.00195	.00363	.00017	.00034	.00009	.00017	.00208
%RSD	191.98	68.709	149.52	.92042	8.9671	16.451	654.57	31.848	114.12	69.590	246.51	14.661	43.465
#1	-0.00007	.00136	.00427	.02486	.00070	.00101	.00167	.00884	-0.00027	.00073	.00003	-.00102	.00627
#2	.00001	.00047	-.00012	.02454	.00080	.00080	-.00108	.01398	-0.00003	.00025	-.00010	-.00126	.00332

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24688	.00155	.01139	.00026	.00060	.44335	.00000	.00476	.00081	.04136	-0.00106	-0.00269	-0.01525
Stddev	.05519	.00088	.00489	.00023	.00055	.01441	.0003	.00137	.00007	.00012	.00054	.00291	.00323
%RSD	22.355	57.116	42.904	90.946	91.598	3.2500	12326.	28.733	9.0618	.28401	51.174	108.05	21.165
#1	.28590	.00217	.01485	.00042	.00099	.43316	.00018	.00379	.00076	.04144	-.00145	-.00475	-.01297
#2	.20786	.00092	.00793	.00009	.00021	.45354	-.00018	.00572	.00086	.04128	-.00068	-.00064	-.01753

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.03264	.00066	.00093	.00230	.00073	.00176	-0.00350	.00092	-0.00040	.00322
Stddev	.00691	.00007	.00011	.00073	.00003	.00013	.00084	.00027	.00020	.00035
%RSD	21.165	10.009	12.245	31.869	3.7726	7.3206	24.003	29.383	48.684	10.865
#1	-.02775	.00062	.00101	.00282	.00075	.00167	-.00290	.00073	-.00026	.00298
#2	-.03752	.00071	.00085	.00179	.00071	.00185	-.00409	.00111	-.00054	.00347

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3138.0	56695.	6978.2
Stddev	2.9	160.	82.3
%RSD	.09160	.28133	1.1795
#1	3136.0	56582.	7036.4
#2	3140.0	56808.	6920.0

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00903	.10819	.01550	F .13136	.00972	.00104	.10733	.18685	.00523	.01062	.01073	.01438
Stddev	.00035	.00115	.00272	.00057	.00003	.00007	.00189	.00631	.00008	.00012	.00019	.00003
%RSD	3.8321	1.0605	17.557	.43414	.26000	6.7165	1.7635	3.3767	1.5459	1.1201	1.7731	.22937

#1	.00927	.10738	.01358	.13096	.00970	.00109	.10599	.18239	.00529	.01053	.01059	.01441
#2	.00878	.10901	.01743	.13176	.00974	.00099	.10867	.19132	.00517	.01070	.01086	.01436

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass							
Value				.10000								
Range				30.000%								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08887	3.1316	.00877	.19626	.01033	.01988	F 1.3809	.04088	3.0906	.00954	.04582	F .00645
Stddev	.00309	.0125	.00066	.00402	.00010	.00009	.0248	.00034	.0078	.00125	.01194	.00394
%RSD	3.4750	.39931	7.4970	2.0487	.99666	.46449	1.7946	.82716	.25376	13.106	26.056	61.122

#1	.08669	3.1228	.00924	.19342	.01025	.01981	1.3634	.04112	3.0962	.00865	.03738	.00366
#2	.09105	3.1405	.00831	.19911	.01040	.01994	1.3984	.04064	3.0851	.01042	.05426	.00924

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Fail					
Value							1.0000					.01000
Range							30.000%					-30.000%

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01681	.40734	.87171	.09987	.00992	.01684	.01016	.01729	.05400	.01084	.02034	.01563
Stddev	.00072	.00077	.00165	.00063	.00010	.00120	.00030	.00026	.02674	.00026	.00016	.00138
%RSD	4.2534	.18895	.18895	.63505	1.0138	7.1402	2.9273	1.5061	49.521	2.4008	.80943	8.8122

#1	.01631	.40788	.87287	.09942	.00985	.01769	.01037	.01711	.03509	.01065	.02046	.01466
#2	.01732	.40680	.87054	.10032	.00999	.01599	.00995	.01747	.07291	.01102	.02022	.01661

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3127.8	56626.	7023.5
Stddev	4.9	197.	19.9
%RSD	.15615	.34722	.28264

#1	3131.3	56765.	7037.5
#2	3124.4	56487.	7009.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0015	.00343	.02409	W 15.111	.28271	.00004	.00217	367.61	-0.0023
Stddev	.00027	.00058	.00203	.001	.00135	.00002	.00221	.61	.00014
%RSD	174.97	16.938	8.4076	.00391	.47671	55.604	101.65	.16541	60.945

#1	.00004	.00385	.02553	15.110	.28176	.00003	.00061	367.18	-.00013
#2	-.00034	.00302	.02266	15.111	.28366	.00006	.00373	368.04	-.00033

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.01000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00470	.01381	.00380	.23978	W 193.92	.15144	128.76	.13778	.04996
Stddev	.00021	.00000	.00023	.00103	.51	.00054	.07	.00048	.00062
%RSD	4.3958	.02974	5.9406	.43146	.26465	.35501	.05540	.34689	1.2401

#1	.00484	.01381	.00396	.23905	193.56	.15106	128.82	.13812	.04952
#2	.00455	.01381	.00364	.24051	194.29	.15182	128.71	.13744	.05040

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-.50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1378.2	.04644	W 3.6271	.00016	F 262.65	.03343	.00574	22.538	48.231
Stddev	6.5	.00019	.0045	.00016	.41	.00105	.00681	.216	.462
%RSD	.47424	.40828	.12299	97.319	.15598	3.1542	118.65	.95809	.95809

#1	1373.5	.04631	3.6239	.00005	262.94	.03268	.00092	22.385	47.904
#2	1382.8	.04658	3.6302	.00027	262.36	.03417	.01055	22.690	48.558

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00		2.0000		200.00				
Low Limit	11.000		-1.0000		-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00056	4.1980	.00213	.00032	-.00764	-.03720	.01604	.03700	.00136
Stddev	.00252	.0191	.00040	.00022	.00103	.00924	.00077	.00016	.00168
%RSD	446.67	.45531	18.975	69.465	13.430	24.846	4.7869	.44338	124.13

#1	.00235	4.1845	.00185	.00048	-.00692	-.03066	.01658	.03712	.00017
#2	-.00122	4.2115	.00242	.00016	-.00837	-.04373	.01549	.03689	.00255

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2731.8	48799.	6721.3
Stddev	.5	168.	18.0
%RSD	.01955	.34511	.26711

#1	2731.4	48680.	6708.6
#2	2732.1	48918.	6734.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0002	.15287	.06232	W 16.052	.92561	.00000	-0.00162	391.38	-0.00017
Stddev	.00111	.00068	.00363	.016	.00027	.0002	.00177	4.80	.00006
%RSD	4636.2	.44406	5.8219	.09986	.02892	3763.3	109.44	1.2269	34.190

#1	-0.00081	.15239	.06488	16.041	.92580	.00011	-0.00287	387.99	-0.00013
#2	.00076	.15335	.05975	16.063	.92542	-0.00012	-0.00037	394.78	-0.00021

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-0.1000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00543	.02649	.00730	24.796	W 199.13	.15920	137.52	1.1300	.05615
Stddev	.00007	.00051	.00001	.063	.50	.00171	.26	.0003	.00076
%RSD	1.2777	1.9359	.13976	.25340	.24873	1.0770	.18589	.02834	1.3562

#1	.00538	.02685	.00729	24.840	199.48	.15799	137.70	1.1302	.05668
#2	.00547	.02613	.00731	24.752	198.78	.16042	137.34	1.1297	.05561

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1212.9	.04838	1.2001	-0.00050	F 269.16	.03504	.01002	24.411	52.239
Stddev	2.2	.00089	.0242	.00050	.30	.00163	.00447	.044	.094
%RSD	.18204	1.8442	2.0155	100.31	.11300	4.6455	44.648	.17956	.17956

#1	1214.5	.04901	1.2172	-0.00085	268.95	.03619	.01318	24.380	52.172
#2	1211.4	.04775	1.1829	-0.00015	269.38	.03389	.00686	24.442	52.305

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00				200.00				
Low Limit	11.000				-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00386	4.6299	.00665	.02581	W -0.1228	W -0.06038	.02050	.02923	.00228
Stddev	.00094	.0360	.00054	.00018	.00174	.00230	.00010	.00002	.00001
%RSD	24.432	.77715	8.1569	.70670	14.157	3.8163	.50651	.07947	.47985

#1	.00319	4.6553	.00627	.02594	-0.1351	-0.06201	.02058	.02925	.00228
#2	.00452	4.6044	.00703	.02568	-0.1105	-0.05875	.02043	.02922	.00229

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000	45.000			
Low Limit					-0.1000	-0.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2692.8	48260.	6688.5
Stddev	7.5	126.	22.5
%RSD	.27941	.26207	.33619

#1	2698.2	48171.	6672.6
#2	2687.5	48350.	6704.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0054	.07649	.05013	W 17.849	1.3397	-0.0001	.00309	488.39	-0.0079
Stddev	.00002	.00028	.00949	.003	.0002	.00006	.00099	9.10	.00024
%RSD	3.2564	.37254	18.935	.01739	.01789	822.02	31.946	1.8624	30.772

#1	-0.0053	.07629	.04342	17.852	1.3395	.00003	.00239	481.96	-0.0062
#2	-0.0055	.07669	.05684	17.847	1.3398	-0.0005	.00379	494.82	-0.0096

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.01000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00373	.02084	.00592	19.491	W 267.62	.15912	169.60	1.4478	.03812
Stddev	.00038	.00011	.00062	.039	.24	.00102	.36	.0013	.00004
%RSD	10.104	.52102	10.547	.20091	.09043	.64311	.20947	.08873	.10018

#1	.00346	.02092	.00548	19.518	267.79	.15985	169.85	1.4469	.03815
#2	.00399	.02076	.00637	19.463	267.45	.15840	169.35	1.4487	.03809

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1440.7	.04560	.74357	.00031	F 276.58	.02951	.00541	24.408	52.233
Stddev	.2	.00036	.00806	.00004	.41	.00228	.00403	.039	.084
%RSD	.01231	.78426	1.0840	11.840	.14709	7.7406	74.433	.16019	.16019

#1	1440.6	.04586	.74927	.00029	276.86	.02789	.00826	24.380	52.174
#2	1440.8	.04535	.73787	.00034	276.29	.03112	.00256	24.436	52.292

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00				200.00				
Low Limit	11.000				-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00146	4.9416	.00563	.01388	W -.01202	-.03514	.00769	.00939	-.00047
Stddev	.00025	.1582	.00092	.00030	.00336	.02702	.00066	.00064	.00141
%RSD	16.886	3.2023	16.391	2.1278	27.934	76.885	8.5797	6.8346	301.09

#1	.00164	4.8297	.00498	.01409	-.01439	-.05425	.00816	.00985	.00053
#2	.00129	5.0535	.00628	.01367	-.00964	-.01604	.00722	.00894	-.00147

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000				
Low Limit					-.01000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2649.6	47036.	6387.1
Stddev	2.1	70.	53.6
%RSD	.08046	.14853	.83861

#1	2648.1	46986.	6424.9
#2	2651.1	47085.	6349.2

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00678	48.391	-0.00094	.05453	.00083	.00025	1.0493	.06965	-0.00027	-0.00030	.00086
Stddev	.00001	.014	.00270	.00492	.00001	.00000	.0189	.04243	.00030	.00011	.00005
%RSD	.20148	.02899	287.42	9.0254	1.6579	1.2371	1.8030	60.924	114.45	37.817	5.6754

#1	-0.00677	48.401	-0.00285	.05105	.00082	.00025	1.0627	.03964	-0.00005	-0.00037	.00082
#2	-0.00679	48.381	.00097	.05801	.00084	.00025	1.0359	.09965	-0.00048	-0.00022	.00089

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00291	46.002	.42071	.00030	.06270	-0.00166	-0.00062	251.78	.00276	.00656	.00113
Stddev	.00028	.064	.00642	.00086	.00865	.00006	.00016	.40	.00105	.00425	.00019
%RSD	9.7394	.13944	1.5266	281.47	13.792	3.8865	25.339	.16051	38.242	64.750	16.370

#1	-0.00271	45.956	.42525	-0.00030	.06882	-0.00161	-0.00073	252.07	.00201	.00957	.00126
#2	-0.00311	46.047	.41617	.00091	.05659	-0.00170	-0.00051	251.49	.00350	.00356	.00100

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.2195	-0.01196	.00503	-0.01590	-0.03403	-0.00035	.00076	5.0288	-0.01167	.00117	W 10.511
Stddev	.0312	.00388	.00027	.00386	.00825	.00102	.00033	.0029	.00002	.00376	.080
%RSD	.59774	32.406	5.4179	24.256	24.256	295.70	43.599	.05805	.17707	321.98	.76369

#1	5.1974	-.01470	.00522	-.01317	-.02819	.00038	.00053	5.0308	-.01166	.00383	10.454
#2	5.2416	-.00922	.00484	-.01863	-.03987	-.00107	.00100	5.0267	-.01169	-.00149	10.568

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value											10.000
Range											5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00348	.00003	-.13961
Stddev	.00009	.00024	.00080
%RSD	2.4966	807.15	.57230

#1	.00342	-.00014	-.13904
#2	.00354	.00020	-.14017

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2936.7	51686.	6349.7
Stddev	6.6	50.	3.6
%RSD	.22589	.09662	.05657

#1	2932.0	51721.	6347.2
#2	2941.4	51650.	6352.3

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48337	.53597	1.0104	F .56559	.48001	.45578	.00177	4.8871	.51958	.50439	.50205	.49463
Stddev	.00362	.00477	.0075	.00171	.00384	.00346	.00076	.4356	.00286	.00094	.00042	.00316
%RSD	.74983	.88907	.74567	.30274	.80014	.75917	43.069	8.9130	.55057	.18601	.08359	.63810

#1	.48594	.53934	1.0158	.56680	.47729	.45333	.00231	5.1951	.52160	.50505	.50235	.49686
#2	.48081	.53260	1.0051	.56438	.48272	.45823	.00123	4.5791	.51756	.50373	.50175	.49239

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass				
Value				.50000								
Range				10.490%								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.2784	49.144	.99431	18.837	.50819	.49638	F 6.5701	.49658	1.0609	.97927	.04380	1.0323
Stddev	.0457	.050	.00821	.096	.00278	.00056	1.4835	.00029	.0020	.00285	.00068	.0067
%RSD	2.0059	.10097	.82578	.50931	.54666	.11285	22.579	.05766	.18526	.29148	1.5479	.65407

#1	2.3107	49.109	.98850	18.905	.51016	.49598	7.6190	.49679	1.0595	.98129	.04428	1.0371
#2	2.2461	49.179	1.0001	18.769	.50623	.49677	5.5211	.49638	1.0623	.97725	.04332	1.0276

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass					
Value							5.0000					
Range							10.490%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.99810	4.5833	9.8084	.99303	.48215	.00080	.50413	1.0028	-.02809	.51896	.49681	.45890
Stddev	.01094	.0620	.1327	.00000	.00031	.00108	.00377	.0088	.00043	.00781	.00342	.00414
%RSD	1.0961	1.3526	1.3526	.00007	.06413	134.13	.74785	.88020	1.5199	1.5049	.68897	.90297

#1	1.0058	4.5395	9.7145	.99303	.48237	.00004	.50679	1.0091	-.02840	.52448	.49923	.45597
#2	.99036	4.6272	9.9022	.99303	.48193	.00157	.50146	.99659	-.02779	.51343	.49439	.46183

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass				
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2981.3	52501.	6351.5
Stddev	5.9	26.	10.0
%RSD	.19873	.04935	.15746

#1	2977.1	52519.	6358.6
#2	2985.5	52482.	6344.5

Sample Name: CCB Acquired: 5/31/2015 1:22:17 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broaderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0014	.00600	.00207	.03054	.00074	.00021	.00166	F .13477	-0.00007	-0.00003	.00014	-0.00142
Stddev	.00012	.00152	.00105	.00187	.00030	.00007	.00166	.16195	.00007	.00019	.00025	.00029
%RSD	84.818	25.390	50.503	6.1276	40.006	32.967	100.17	120.17	101.69	553.03	179.55	20.686

#1	-0.00022	.00707	.00133	.03186	.00053	.00016	.00284	.02025	-0.00002	.00010	.00031	-0.00121
#2	-0.00005	.00492	.00281	.02922	.00095	.00026	.00048	.24929	-0.00012	-0.00016	-0.00004	-0.00163

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass						
High Limit								.05000				
Low Limit								-.05000				

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01466	.22684	-0.00085	.00166	-0.00002	.00034	F .80679	.00023	.00592	-0.00059	.07864	-0.00194
Stddev	.02024	.09668	.00002	.00469	.00006	.00028	.52737	.00003	.00472	.00094	.01342	.00049
%RSD	138.08	42.620	2.2005	282.88	362.53	81.186	65.366	11.543	79.647	159.05	17.065	25.433

#1	.00035	.15848	-0.00086	-0.00166	-0.00006	.00015	.43389	.00024	.00926	-0.00126	.08813	-0.00159
#2	.02897	.29520	-0.00083	.00497	.00003	.00054	1.1797	.00021	.00259	.00007	.06915	-0.00229

Check ?	Chk Pass	Chk Fail	Chk Pass									
High Limit							.50000					
Low Limit							-.50000					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00216	.00496	.01061	-0.00040	.00162	.00376	.00071	.00068	-0.03000	.00032	-0.00033	.00177
Stddev	.00428	.00420	.00900	.00065	.00178	.00197	.00009	.00172	.00301	.00035	.00036	.00014
%RSD	197.96	84.814	84.814	162.86	110.00	52.456	12.224	253.52	10.025	111.57	107.92	7.9399

#1	.00086	.00793	.01697	-0.00085	.00036	.00236	.00077	.00189	-.02788	.00057	-0.00059	.00167
#2	-0.00518	.00198	.00425	.00006	.00288	.00515	.00064	-0.00054	-.03213	.00007	-0.00008	.00187

Check ?	Chk Pass											
High Limit												
Low Limit												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3030.0	53475.	6413.7
Stddev	8.4	56.	.9
%RSD	.27664	.10473	.01380

#1	3024.1	53514.	6414.3
#2	3035.9	53435.	6413.1

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00947	.11129	.01425	F .13566	.01012	.00106	.10679	.18235	.00528	.01052	.01059	.01386
Stddev	.00047	.00311	.00336	.00149	.00026	.00009	.00037	.00196	.00011	.00000	.00002	.00020
%RSD	4.9582	2.7931	23.561	1.0984	2.5930	8.1009	.34267	1.0724	2.0484	.03844	.18119	1.4501

#1	.00980	.10909	.01663	.13460	.00993	.00112	.10705	.18373	.00521	.01053	.01060	.01400
#2	.00914	.11349	.01188	.13671	.01031	.00100	.10653	.18097	.00536	.01052	.01057	.01372

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass							
Value				.10000								
Range				30.000%								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08825	3.1092	.01055	.21983	.01066	.02042	F 1.3962	.04101	3.1372	.00856	.05120	.00946
Stddev	.00099	.0471	.00049	.00839	.00001	.00036	.0007	.00023	.0121	.00236	.02364	.00023
%RSD	1.1232	1.5155	4.6198	3.8156	.11814	1.7656	.05053	.57238	.38624	27.585	46.174	2.4163

#1	.08895	3.1425	.01089	.22576	.01067	.02017	1.3957	.04118	3.1286	.00689	.03449	.00930
#2	.08755	3.0759	.01020	.21390	.01065	.02068	1.3967	.04085	3.1458	.01023	.06792	.00962

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass					
Value							1.0000					
Range							30.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01564	.42712	.91404	.10169	.00997	.01848	.01059	.01653	.05493	.01092	.02098	.01472
Stddev	.00172	.01274	.02726	.00129	.00006	.00132	.00008	.00034	.01509	.00054	.00015	.00127
%RSD	10.970	2.9820	2.9820	1.2678	.59198	7.1617	.72458	2.0548	27.467	4.9807	.69500	8.6322

#1	.01443	.43613	.93332	.10260	.01001	.01941	.01065	.01629	.04426	.01054	.02088	.01382
#2	.01685	.41812	.89477	.10078	.00992	.01754	.01054	.01677	.06560	.01131	.02109	.01562

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3017.1	53389.	6426.6
Stddev	17.9	117.	62.7
%RSD	.59260	.21961	.97530

#1	3004.4	53306.	6470.9
#2	3029.7	53472.	6382.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0003	.00435	.00238	F .02269	.00041	.00007	-0.00023	.01382	-0.00029
Stddev	.00143	.00086	.00033	.00042	.00007	.00007	.00042	.00849	.00001
%RSD	4635.2	19.780	13.962	1.8589	16.051	95.130	180.17	61.421	2.0632

#1	.00098	.00375	.00215	.02239	.00036	.00012	-.00052	.01982	-.00029
#2	-.00105	.00496	.00262	.02298	.00046	.00002	.00006	.00782	-.00028

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass				
High Limit				.01000					
Low Limit				-.01000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00017	F -.00020	-0.00145	.00278	.11022	-0.00144	.00044	W .00027	-0.00022
Stddev	.00008	.00016	.00034	.00193	.02201	.00008	.00615	.00002	.00007
%RSD	45.621	76.348	23.094	69.558	19.970	5.6552	1391.4	7.2085	32.313

#1	.00011	-.00032	-.00122	.00414	.12578	-.00138	-.00391	.00026	-.00017
#2	.00022	-.00009	-.00169	.00141	.09465	-.00150	.00479	.00029	-.00027

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Warn	Chk Pass				
High Limit		.01000						.00023	
Low Limit		-.00010						-.00500	

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .36776	-0.00008	.00300	-0.00060	F .03952	W -0.00622	-0.00022	F -0.03030	-0.06485
Stddev	.00969	.00020	.00163	.00049	.00446	.00068	.00260	.00846	.01810
%RSD	2.6353	269.61	54.171	81.662	11.288	10.871	1178.7	27.910	27.910

#1	.37461	-.00022	.00415	-.00025	.03637	-.00574	-.00206	-.02432	-.05205
#2	.36091	.00007	.00185	-.00095	.04268	-.00670	.00162	-.03628	-.07764

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Warn	Chk Pass	Chk Fail	None
High Limit	.05054				.01000	.00500		.01000	
Low Limit	-.50000				-.01000	-.00500		-.01000	

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00022	.00014	W .00317	.00036	-0.00148	-0.02679	.00052	.00238	.00108
Stddev	.00007	.00003	.00126	.00028	.00108	.02585	.00024	.00035	.00087
%RSD	34.296	18.278	39.689	77.401	73.059	96.497	45.216	14.909	80.985

#1	-.00017	.00016	.00228	.00055	-.00071	-.04507	.00069	.00263	.00046
#2	-.00027	.00012	.00406	.00016	-.00224	-.00851	.00035	.00213	.00169

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.00000						
Low Limit			-.00500						

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3070.7	54190.	6582.5
Stddev	1.5	161.	18.1
%RSD	.05014	.29754	.27509

#1	3069.6	54076.	6569.7
#2	3071.8	54304.	6595.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04426	1.9870	1.0197	1.0938	1.9260	.04560	2.0586	F 43.734	.10524
Stddev	.00082	.0097	.0057	.0075	.0003	.00018	.0074	.095	.00002
%RSD	1.8507	.48725	.55633	.68961	.01564	.38936	.35976	.21760	.01979

#1	.04368	1.9801	1.0157	1.0884	1.9263	.04572	2.0534	43.801	.10526
#2	.04483	1.9938	1.0237	1.0991	1.9258	.04547	2.0639	43.667	.10523

Check ?	Chk Pass	None	Chk Fail	Chk Pass					
High Limit								55.500	
Low Limit								44.750	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49271	F .19668	.25077	F .87487	49.389	.99960	46.698	.50155	1.0301
Stddev	.00295	.00064	.00128	.01012	.093	.00190	.011	.00016	.0027
%RSD	.59873	.32344	.50870	1.1563	.18917	.19050	.02344	.03224	.26138

#1	.49062	.19623	.24987	.88202	49.323	.99825	46.691	.50144	1.0282
#2	.49480	.19713	.25167	.86771	49.455	1.0009	46.706	.50167	1.0320

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass				
High Limit		.05750		1.1500					
Low Limit		.04275		.89000					

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	53.882	.48630	10.930	.49115	2.0709	.53774	2.0891	F 8.8723	18.987
Stddev	.020	.00203	.038	.00380	.0239	.00734	.0192	.0088	.019
%RSD	.03736	.41649	.35160	.77387	1.1566	1.3655	.91681	.09903	.09903

#1	53.868	.48487	10.903	.48846	2.0539	.53255	2.0755	8.8661	18.973
#2	53.896	.48773	10.958	.49384	2.0878	.54293	2.1026	8.8785	19.000

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Fail	None
High Limit								11.000	
Low Limit								9.0000	

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9794	.96061	1.0136	1.0056	1.9973	2.1041	.51761	.46488	.43104
Stddev	.0126	.00030	.0010	.0022	.0105	.0114	.00141	.00601	.00022
%RSD	.63439	.03145	.09750	.21653	.52539	.54310	.27273	1.2931	.05208

#1	1.9705	.96040	1.0129	1.0071	1.9898	2.1122	.51861	.46913	.43120
#2	1.9883	.96083	1.0143	1.0041	2.0047	2.0960	.51661	.46063	.43088

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2952.0	52186.	6490.4
Stddev	5.0	176.	40.9
%RSD	.16905	.33796	.63056

#1	2955.5	52310.	6461.5
#2	2948.5	52061.	6519.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00048	.00771	.00039	2.9377	.00153	.00007	-.00106	13.884	-.00007
Stddev	.00018	.00029	.00199	.0430	.00022	.00003	.00093	.056	.00029
%RSD	36.433	3.7400	514.09	1.4628	14.186	42.509	87.802	.40599	408.84

#1	.00061	.00791	.00180	2.9073	.00169	.00009	-.00172	13.845	-.00027
#2	.00036	.00750	-.00102	2.9681	.00138	.00005	-.00040	13.924	.00013

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00123	.00034	-.00151	.30509	.51158	.00349	18.526	.07305	.00067
Stddev	.00013	.00041	.00028	.00439	.00185	.00098	.017	.00038	.00016
%RSD	10.915	121.56	18.704	1.4388	.36125	27.967	.09378	.52404	23.565

#1	.00114	.00063	-.00171	.30199	.51288	.00418	18.513	.07278	.00055
#2	.00133	.00005	-.00131	.30819	.51027	.00280	18.538	.07332	.00078

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0182	.00702	.00171	.00076	21.094	.00033	.02611	.44577	.95395
Stddev	.0133	.00085	.00293	.00275	.026	.00271	.00154	.00274	.00587
%RSD	1.3025	12.050	171.41	364.49	.12223	811.53	5.8941	.61538	.61538

#1	1.0089	.00643	.00378	-.00119	21.076	-.00158	.02502	.44771	.95810
#2	1.0276	.00762	-.00036	.00270	21.112	.00225	.02719	.44383	.94980

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00783	.04781	.00389	.00049	-.00095	-.02011	.00002	.01328	.00182
Stddev	.00079	.00035	.00123	.00003	.00206	.00476	.00038	.00008	.00068
%RSD	10.066	.73733	31.647	5.7903	216.64	23.696	1552.9	.60726	37.320

#1	.00839	.04756	.00476	.00051	.00051	-.02348	.00030	.01322	.00230
#2	.00728	.04806	.00302	.00047	-.00241	-.01674	-.00025	.01334	.00134

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3011.9	53626.	6487.7
Stddev	7.9	300.	2.4
%RSD	.26143	.55862	.03670

#1	3006.4	53414.	6489.4
#2	3017.5	53838.	6486.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0028	.00316	.00136	.60679	.00024	.00007	.00029	2.8954	-0.0023
Stddev	.00035	.00009	.00047	.00109	.00052	.00007	.00019	.0124	.00004
%RSD	123.87	2.7162	34.193	.18040	218.66	89.082	67.025	.42888	15.369

#1	-0.0052	.00310	.00103	.60756	-0.0013	.00003	.00043	2.8866	-0.0026
#2	-0.0003	.00322	.00169	.60602	.00060	.00012	.00015	2.9042	-0.0021

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00018	.00014	-0.00128	.13248	.20836	.00010	3.8575	.01495	.00018
Stddev	.00028	.00017	.00003	.00143	.00897	.00066	.0128	.00016	.00014
%RSD	156.19	119.31	2.2717	1.0791	4.3066	677.01	.33133	1.0839	79.473

#1	.00037	.00002	-.00126	.13147	.20202	-.00037	3.8665	.01507	.00008
#2	-.00002	.00026	-.00130	.13349	.21471	.00057	3.8485	.01484	.00028

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.40682	.00134	.00395	-.00124	4.2321	-.00264	-.00019	.06403	.13702
Stddev	.00001	.00070	.00330	.00094	.0289	.00203	.00348	.01439	.03079
%RSD	.00290	52.273	83.518	75.655	.68181	76.751	1876.0	22.468	22.468

#1	.40681	.00184	.00162	-.00190	4.2525	-.00408	.00227	.07420	.15879
#2	.40683	.00085	.00629	-.00058	4.2117	-.00121	-.00264	.05386	.11525

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00279	.00973	-.00024	.00019	.00032	.01378	.00000	.00567	.00131
Stddev	.00111	.00017	.00174	.00005	.00134	.00534	.00005	.00054	.00006
%RSD	39.858	1.7615	715.27	26.231	413.40	38.750	1345.2	9.4410	4.7482

#1	.00201	.00961	-.00147	.00015	-.00062	.01000	-.00003	.00605	.00136
#2	.00358	.00985	.00099	.00022	.00127	.01755	.00004	.00529	.00127

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3031.5	53883.	6548.6
Stddev	20.1	174.	12.2
%RSD	.66172	.32343	.18612

#1	3045.7	54006.	6557.2
#2	3017.3	53759.	6540.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00086	.05098	.02471	3.0961	.04129	.00095	.04220	15.738	.00216
Stddev	.00008	.00013	.00187	.0219	.00024	.00005	.00158	.115	.00023
%RSD	9.6689	.24758	7.5863	.70822	.57364	4.9575	3.7348	.73134	10.764

#1	.00092	.05107	.02339	3.0806	.04112	.00099	.04331	15.657	.00199
#2	.00080	.05089	.02604	3.1116	.04146	.00092	.04108	15.819	.00232

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01136	.00451	.00441	.01831	1.5096	.02334	20.900	.08568	.02162
Stddev	.00034	.00022	.00008	.00077	.0389	.00019	.180	.00061	.00028
%RSD	2.9800	4.8561	1.9126	4.2286	2.5803	.81735	.85939	.71763	1.3012

#1	.01112	.00435	.00435	.01886	1.4821	.02320	20.773	.08524	.02182
#2	.01160	.00466	.00447	.01777	1.5372	.02347	21.027	.08611	.02142

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9358	.01776	.22501	.01250	22.336	.01062	.06969	.65806	1.4082
Stddev	.0130	.00062	.00592	.00075	.160	.00218	.00082	.00958	.0205
%RSD	.67303	3.4645	2.6302	6.0089	.71827	20.488	1.1756	1.4553	1.4553

#1	1.9265	.01820	.22083	.01197	22.222	.00908	.07027	.65129	1.3938
#2	1.9450	.01733	.22920	.01303	22.449	.01216	.06911	.66483	1.4227

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04849	.06995	.02320	.02120	.04190	.02103	.01032	.01330	.00958
Stddev	.00044	.00023	.00178	.00012	.00350	.00143	.00069	.00032	.00027
%RSD	.91161	.32225	7.6762	.54767	8.3598	6.7912	6.7256	2.4240	2.8132

#1	.04817	.06979	.02194	.02111	.04437	.02204	.00983	.01307	.00939
#2	.04880	.07011	.02446	.02128	.03942	.02002	.01081	.01352	.00977

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2996.5	53039.	6355.8
Stddev	5.0	141.	1.8
%RSD	.16733	.26518	.02863

#1	2993.0	53138.	6357.1
#2	3000.0	52939.	6354.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00067	.05256	.02490	3.1662	.04243	.00091	.04637	15.765	.00213
Stddev	.00001	.00010	.00693	.0210	.00016	.00005	.00042	.011	.00017
%RSD	1.4679	.18736	27.842	.66367	.38231	5.8562	.90925	.07048	7.9716

#1	.00067	.05263	.02000	3.1513	.04231	.00094	.04607	15.757	.00201
#2	.00066	.05249	.02981	3.1810	.04254	.00087	.04667	15.773	.00225

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01150	.00416	.00459	.01751	1.5452	.02511	21.189	.08704	.02250
Stddev	.00005	.00045	.00014	.00113	.0102	.00099	.026	.00083	.00027
%RSD	.46507	10.866	3.1402	6.4726	.65751	3.9236	.12322	.95088	1.1994

#1	.01154	.00384	.00469	.01831	1.5380	.02442	21.208	.08762	.02231
#2	.01146	.00448	.00449	.01671	1.5524	.02581	21.171	.08645	.02269

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9602	.01816	.23088	.01224	22.819	.00919	.07156	.67992	1.4550
Stddev	.0135	.00013	.00445	.00144	.150	.00124	.00157	.00427	.0091
%RSD	.69040	.69239	1.9290	11.762	.65566	13.499	2.1919	.62817	.62817

#1	1.9697	.01807	.22773	.01122	22.714	.00832	.07267	.67690	1.4486
#2	1.9506	.01825	.23403	.01326	22.925	.01007	.07045	.68294	1.4615

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05058	.07090	.02316	.02181	.04319	.02281	.01129	.01358	.01132
Stddev	.00133	.00006	.00011	.00020	.00010	.03610	.00028	.00041	.00088
%RSD	2.6201	.08112	.49293	.92547	.23635	158.25	2.4984	3.0274	7.8110

#1	.05152	.07086	.02324	.02195	.04311	.04834	.01149	.01387	.01195
#2	.04964	.07094	.02308	.02167	.04326	-.00271	.01109	.01329	.01070

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2992.6	53446.	6482.3
Stddev	13.9	369.	37.8
%RSD	.46448	.69042	.58299

#1	3002.4	53186.	6455.6
#2	2982.8	53707.	6509.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04719	1.0348	.20574	3.0113	.09650	.04540	.00128	30.771	.05292
Stddev	.00006	.0113	.00533	.0272	.00079	.00021	.00060	.021	.00053
%RSD	.13464	1.0872	2.5919	.90342	.81839	.46832	46.513	.06953	.99577

#1	.04723	1.0428	.20951	3.0305	.09595	.04525	.00086	30.786	.05330
#2	.04714	1.0269	.20197	2.9921	.09706	.04555	.00171	30.755	.05255

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05011	.04912	.04916	.96618	19.631	.10231	37.101	.12094	.04982
Stddev	.00081	.00063	.00021	.00693	.018	.00065	.011	.00013	.00047
%RSD	1.6227	1.2729	.42432	.71773	.09273	.63901	.02993	.10725	.94986

#1	.05069	.04956	.04902	.96128	19.644	.10184	37.109	.12103	.05015
#2	.04954	.04868	.04931	.97108	19.618	.10277	37.094	.12085	.04948

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.567	.05531	W 2.1778	.10070	21.373	.10406	.23224	4.8197	10.314
Stddev	.196	.00069	.0191	.00069	.196	.00089	.00144	.0682	.146
%RSD	.86645	1.2412	.87734	.68766	.91637	.85967	.61980	1.4156	1.4156

#1	22.706	.05579	2.1913	.10119	21.511	.10469	.23326	4.7715	10.211
#2	22.429	.05482	2.1643	.10021	21.234	.10343	.23123	4.8680	10.417

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10785	.09455	.20511	.05055	.20256	.51142	.05224	.20904	.04006
Stddev	.00006	.00179	.00140	.00010	.00069	.00545	.00047	.00032	.00116
%RSD	.05492	1.8953	.68119	.20629	.34236	1.0650	.89627	.15450	2.9061

#1	.10780	.09328	.20610	.05063	.20207	.50756	.05258	.20881	.03923
#2	.10789	.09582	.20412	.05048	.20305	.51527	.05191	.20927	.04088

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2942.4	51907.	6446.4
Stddev	14.5	86.	100.2
%RSD	.49357	.16551	1.5540

#1	2932.2	51968.	6375.5
#2	2952.7	51847.	6517.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00015	.00374	-.00402	.02855	.00220	.00010	-.00068	.56656	-.00007
Stddev	.00051	.00046	.00212	.00001	.00006	.00001	.00069	.00342	.00024
%RSD	329.79	12.254	52.663	.01936	2.7368	9.7972	101.93	.60346	362.05

#1	.00051	.00342	-.00253	.02855	.00225	.00011	-.00117	.56414	-.00023
#2	-.00020	.00407	-.00552	.02854	.00216	.00010	-.00019	.56897	.00010

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00034	.00014	-.00141	-.00091	.23606	-.00129	.10528	.00001	.00019
Stddev	.00014	.00024	.00012	.00036	.01162	.00051	.00192	.00005	.00015
%RSD	41.734	175.99	8.4655	40.003	4.9216	39.424	1.8278	399.48	78.494

#1	.00024	.00031	-.00150	-.00117	.22784	-.00093	.10392	.00005	.00008
#2	.00044	-.00003	-.00133	-.00065	.24427	-.00165	.10664	-.00002	.00029

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.39264	-.00006	.00234	-.00067	.32915	-.00187	-.00279	.03760	.08046
Stddev	.00369	.00029	.00202	.00012	.00428	.00045	.00171	.00292	.00626
%RSD	.93857	496.06	86.378	17.634	1.2989	24.004	61.018	7.7740	7.7740

#1	.39004	-.00027	.00091	-.00058	.33217	-.00219	-.00159	.03553	.07604
#2	.39525	.00015	.00377	-.00075	.32612	-.00155	-.00400	.03967	.08488

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00765	.00547	.00257	.00005	.00163	-.02261	.00045	.00072	.00098
Stddev	.00023	.00020	.00187	.00014	.00083	.02176	.00062	.00023	.00036
%RSD	2.9798	3.6971	72.581	283.99	51.003	96.227	138.02	31.656	36.845

#1	.00781	.00533	.00390	-.00005	.00104	-.03800	.00001	.00088	.00073
#2	.00749	.00562	.00125	.00015	.00221	-.00723	.00089	.00056	.00124

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3004.1	53390.	6309.2
Stddev	25.7	213.	10.4
%RSD	.85453	.39896	.16537

#1	3022.3	53240.	6301.8
#2	2986.0	53541.	6316.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0024	.00007	.00393	.01928	.00139	.00015	-0.00071	.37829	-0.00031
Stddev	.00018	.00008	.00221	.00122	.00036	.00001	.00272	.04362	.00005
%RSD	76.329	117.80	56.252	6.3431	25.568	8.4745	384.72	11.531	16.773

#1	-0.00036	.00012	.00549	.02015	.00114	.00014	-0.00263	.34745	-0.00035
#2	-0.00011	.00001	.00236	.01842	.00164	.00016	.00122	.40914	-0.00027

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00036	.00023	-0.00126	.00383	.11372	-0.00032	.21768	.00015	.00003
Stddev	.00005	.00003	.00001	.00033	.04337	.00142	.00197	.00002	.00023
%RSD	13.462	14.898	.57023	8.6149	38.133	441.65	.90405	10.915	660.56

#1	.00033	.00021	-0.00125	.00360	.08306	-0.00132	.21629	.00016	-0.00013
#2	.00040	.00025	-0.00126	.00407	.14438	.00068	.21907	.00014	.00019

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.35611	.00006	.00084	-0.00063	.42238	-0.00317	.00005	-0.00559	-0.01196
Stddev	.02905	.00039	.00152	.00111	.00243	.00003	.00333	.00951	.02035
%RSD	8.1569	618.70	180.58	176.36	.57610	1.0917	6259.9	170.13	170.13

#1	.33557	-0.00021	.00192	-0.00142	.42066	-0.00315	-0.00230	.00113	.00243
#2	.37665	.00034	-0.00023	.00016	.42410	-0.00319	.00241	-.01231	-.02635

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00847	.00189	.00197	-0.00006	-0.00066	-0.01266	.00038	.00054	.00102
Stddev	.00132	.00037	.00148	.00025	.00087	.03625	.00011	.00031	.00040
%RSD	15.589	19.526	75.044	439.35	132.30	286.23	28.511	57.249	39.472

#1	.00754	.00163	.00092	.00012	-0.00127	.01297	.00030	.00075	.00130
#2	.00941	.00215	.00301	-0.00024	-0.00004	-0.03829	.00046	.00032	.00073

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2978.4	53021.	6308.8
Stddev	12.7	63.	86.7
%RSD	.42722	.11836	1.3745

#1	2969.4	53065.	6247.5
#2	2987.4	52977.	6370.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0028	.00140	.00045	2.8617	.00104	.00007	.00032	16.718	-0.00008
Stddev	.00052	.00077	.00205	.0168	.00022	.00004	.00117	.001	.00006
%RSD	185.36	55.024	459.46	.58621	21.414	57.502	369.08	.00636	82.949

#1	.00009	.00086	-.00101	2.8736	.00088	.00004	.00114	16.719	-.00003
#2	-.00065	.00195	.00190	2.8499	.00120	.00009	-.00051	16.717	-.00012

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00061	.00000	-0.00064	.00074	.46011	.00196	15.728	.06071	.00081
Stddev	.00007	.0001	.00006	.00010	.02154	.00037	.067	.00003	.00014
%RSD	11.553	3804.6	9.2970	13.211	4.6811	19.041	.42838	.05430	17.324

#1	.00066	.00009	-.00060	.00067	.47534	.00223	15.776	.06068	.00091
#2	.00056	-.00009	-.00068	.00081	.44488	.00170	15.680	.06073	.00071

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.65177	.00352	.00431	.00044	18.165	-0.0013	.00652	.38435	.82250
Stddev	.00327	.00047	.00419	.00139	.134	.00044	.00326	.00281	.00602
%RSD	.50126	13.213	97.198	313.87	.73506	336.48	50.036	.73184	.73184

#1	.65408	.00319	.00727	.00142	18.071	.00018	.00421	.38236	.81825
#2	.64946	.00385	.00135	-.00054	18.260	-.00044	.00882	.38634	.82676

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00693	.05916	.00040	.00034	-.00184	-.00925	-.00025	.00203	.00048
Stddev	.00048	.00003	.00028	.00034	.00118	.02519	.00005	.00041	.00122
%RSD	6.9148	.04278	69.535	97.920	64.072	272.34	19.249	20.302	253.85

#1	.00726	.05918	.00059	.00058	-.00267	-.02706	-.00028	.00232	.00134
#2	.00659	.05915	.00020	.00011	-.00100	.00856	-.00021	.00173	-.00038

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2972.8	52363.	6249.2
Stddev	4.4	219.	1.1
%RSD	.14633	.41783	.01788

#1	2975.9	52208.	6250.0
#2	2969.8	52518.	6248.4

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00754	49.324	.00015	.01827	.00085	.00005	W 1.0797	.02905	-0.00016	-0.00040	.00069
Stddev	.00004	.140	.00123	.00006	.00013	.00006	.0158	.00053	.00001	.00009	.00032
%RSD	.58434	.28322	798.43	.33074	15.640	140.11	1.4630	1.8102	9.2703	22.878	46.445

#1	-0.00751	49.225	-0.00072	.01823	.00094	.00009	1.0685	.02868	-0.00015	-0.00034	.00046
#2	-0.00757	49.423	.00102	.01831	.00075	.00000	1.0908	.02942	-0.00017	-0.00047	.00091

Check ?	None	Chk Pass	None	None	None	None	Chk Warn	None	None	None	None
Value							1.0000				
Range							5.0000%				

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00275	46.659	.08814	.00087	.05540	-0.00175	-0.00019	257.52	.00229	.00869	.00014
Stddev	.00006	.776	.03129	.00129	.00142	.00009	.00032	.45	.00020	.00275	.00093
%RSD	2.2168	1.6624	35.495	147.78	2.5588	5.3901	166.63	.17526	8.6902	31.628	665.06

#1	-0.00271	46.111	.06602	-0.0004	.05440	-0.00168	.00003	257.20	.00215	.00675	.00080
#2	-0.00280	47.208	.11026	.00178	.05640	-0.00182	-0.00042	257.84	.00243	.01063	-0.00052

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.2412	-0.01288	.00644	-0.03431	-0.07341	-0.00046	.00032	W 5.2839	-0.01231	.00039	W 10.957
Stddev	.0712	.00062	.00033	.00582	.01245	.00079	.00002	.0807	.00112	.00094	.036
%RSD	1.3585	4.8159	5.1261	16.962	16.962	171.57	5.3606	1.5266	9.1067	241.15	.32578

#1	5.1909	-.01244	.00621	-0.03842	-0.08222	-0.00102	.00031	5.2269	-.01152	-.00028	10.982
#2	5.2916	-.01331	.00668	-0.03019	-0.06461	.00010	.00034	5.3410	-.01310	.00106	10.932

Check ?	Chk Pass	None	None	None	None	None	None	Chk Warn	None	None	Chk Warn
Value								5.0000			10.000
Range								5.0000%			5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00327	-0.00049	-.15287
Stddev	.00051	.00080	.00130
%RSD	15.712	162.74	.85079

#1	.00290	-.00106	-.15195
#2	.00363	.00007	-.15379

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2995.6	51392.	6439.0
Stddev	19.2	581.	5.0
%RSD	.64187	1.1296	.07707

#1	3009.2	51803.	6442.5
#2	2982.0	50982.	6435.5

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48899	.54289	1.0477	F .56274	.50040	.47398	.00117	4.6974	.53998	.51773	.53075	.50513
Stddev	.00370	.00480	.0085	.00544	.00731	.00494	.00098	.0401	.00531	.00343	.00170	.00411
%RSD	.75622	.88363	.81407	.96687	1.4606	1.0419	84.060	.85344	.98361	.66287	.31998	.81323

#1	.48637	.54628	1.0538	.56659	.49523	.47049	.00187	4.6690	.54374	.52015	.53195	.50222
#2	.49160	.53950	1.0417	.55890	.50557	.47747	.00047	4.7257	.53623	.51530	.52955	.50803

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass				
Value				.50000								
Range				10.490%								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3037	50.617	1.0291	19.157	.51602	.51161	5.3440	.51137	1.0976	1.0100	.01752	1.0742
Stddev	.0227	.379	.0099	.059	.00206	.00332	.0623	.00225	.0160	.0057	.00135	.0064
%RSD	.98425	.74970	.95787	.30677	.39948	.64965	1.1649	.44049	1.4549	.56048	7.7161	.59879

#1	2.2876	50.348	1.0221	19.115	.51456	.51396	5.3000	.51296	1.1088	1.0140	.01848	1.0788
#2	2.3197	50.885	1.0360	19.198	.51748	.50925	5.3881	.50977	1.0863	1.0060	.01657	1.0697

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0421	4.5864	9.8149	1.0216	.50045	.00191	.51779	1.0391	-.01815	.53291	.49134	.47563
Stddev	.0130	.1071	.2292	.0076	.00612	.00014	.00672	.0072	.00133	.00423	.00076	.00626
%RSD	1.2443	2.3351	2.3351	.73909	1.2234	7.1756	1.2980	.68770	7.3157	.79372	.15453	1.3154

#1	1.0513	4.5107	9.6529	1.0269	.49612	.00200	.51304	1.0442	-.01909	.52992	.49188	.47121
#2	1.0330	4.6621	9.9770	1.0162	.50478	.00181	.52254	1.0340	-.01721	.53590	.49081	.48006

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass				
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3070.0	54444.	6529.1
Stddev	11.5	208.	32.0
%RSD	.37603	.38131	.49003

#1	3061.8	54590.	6506.5
#2	3078.1	54297.	6551.7

Sample Name: CCB Acquired: 5/31/2015 1:57:41 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00005	-.00050	-.00031	.01272	-.00007	.00011	.00228	-.00556	-.00014	.00005	.00008	-.00150	-.00180
Stddev	.00065	.00057	.00190	.00043	.00007	.00001	.00374	.00113	.00014	.00003	.00012	.00013	.00086
%RSD	1208.7	115.47	606.77	3.3494	104.45	10.967	163.99	20.399	100.81	65.265	152.08	8.6090	47.889

#1	.00051	-.00090	.00103	.01302	-.00002	.00012	.00493	-.00636	-.00023	.00007	.00016	-.00140	-.00119
#2	-.00040	-.00009	-.00165	.01242	-.00011	.00010	-.00036	-.00476	-.00004	.00003	-.00001	-.00159	-.00241

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03973	-.00074	-.00385	-.00007	-.00007	.14030	.00004	.00187	-.00058	.01849	.00013	-.00017	-.04181
Stddev	.04321	.00046	.00066	.00003	.00000	.00896	.00002	.00204	.00065	.00126	.00169	.00027	.00228
%RSD	108.75	61.900	17.208	41.788	4.8485	6.3871	55.985	109.02	113.48	6.8236	1281.4	161.14	5.4453

#1	.07028	-.00042	-.00338	-.00005	-.00007	.13396	.00006	.00331	-.00011	.01759	.00133	.00002	-.04342
#2	.00918	-.00107	-.00432	-.00009	-.00007	.14664	.00003	.00043	-.00104	.01938	-.00107	-.00036	-.04020

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.08947	.00028	.00008	.00370	.00020	-.00044	-.01919	.00048	-.00010	.00264
Stddev	.00487	.00011	.00008	.00127	.00036	.00040	.00327	.00009	.00070	.00159
%RSD	5.4453	38.585	97.270	34.423	185.00	90.931	17.052	19.345	674.41	60.081

#1	-.09292	.00035	.00013	.00280	-.00006	-.00072	-.01688	.00055	.00039	.00377
#2	-.08603	.00020	.00002	.00460	.00045	-.00016	-.02151	.00042	-.00060	.00152

Check ?	Chk Pass									
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3136.2	55558.	6896.2
Stddev	18.0	138.	36.5
%RSD	.57258	.24755	.52927

#1	3123.5	55655.	6922.0
#2	3148.9	55460.	6870.4

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00968	.10990	.01094	.11906	.00979	.00088	.10694	.17911	.00519	.01069	.01072	.01368
Stddev	.00045	.00075	.00225	.00006	.00000	.00004	.00045	.00415	.00005	.00022	.00013	.00023
%RSD	4.6255	.68566	20.556	.04732	.04395	4.7688	.42115	2.3187	.91352	2.0592	1.2361	1.6754

#1	.00936	.11043	.01253	.11902	.00979	.00091	.10725	.17617	.00516	.01084	.01063	.01384
#2	.00999	.10937	.00935	.11910	.00978	.00085	.10662	.18204	.00522	.01053	.01082	.01352

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08657	3.0101	.01022	.20064	.01042	.01986	1.1661	.04066	3.0759	.00764	.02100	.00931
Stddev	.00017	.0510	.00001	.00588	.00001	.00021	.0061	.00054	.0022	.00023	.00045	.00116
%RSD	.19755	1.6959	.11510	2.9284	.10755	1.0444	.52077	1.3338	.07320	2.9848	2.1391	12.408

#1	.08669	2.9740	.01021	.20479	.01041	.01971	1.1704	.04105	3.0775	.00748	.02069	.01013
#2	.08645	3.0462	.01023	.19648	.01043	.02000	1.1618	.04028	3.0743	.00780	.02132	.00850

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01644	.39493	.84515	.10159	.00983	.01842	.01012	.01624	F .01338	.01114	.02119	.01399
Stddev	.00697	.00300	.00643	.00081	.00009	.00138	.00003	.00070	.00875	.00025	.00026	.00119
%RSD	42.406	.76034	.76034	.79889	.90943	7.4956	.27053	4.3161	65.384	2.2868	1.2474	8.5276

#1	.01151	.39281	.84060	.10102	.00977	.01940	.01010	.01673	.01957	.01132	.02100	.01314
#2	.02137	.39705	.84969	.10217	.00990	.01745	.01014	.01574	.00719	.01096	.02137	.01483

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass							
Value									.06000			
Range									-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3139.1	55751.	6727.9
Stddev	.5	69.	21.5
%RSD	.01575	.12325	.31912

#1	3139.5	55703.	6743.1
#2	3138.8	55800.	6712.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0034	.00281	.00071	.03084	.00193	.00004	-0.00065	1.0779	-0.0010
Stddev	.00036	.00018	.00499	.00192	.00006	.00000	.00020	.0034	.00012
%RSD	106.04	6.2878	700.93	6.2251	3.2854	8.5410	30.664	.31656	114.58

#1	-0.00008	.00268	-0.00281	.02948	.00198	.00004	-0.00079	1.0803	-0.0019
#2	-0.00059	.00293	.00424	.03220	.00189	.00004	-0.00051	1.0755	-0.0002

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00018	.00011	-0.00126	.00362	.07787	.00157	.24653	.00070	.00159
Stddev	.00027	.00023	.00011	.00016	.03409	.00206	.00254	.00000	.00020
%RSD	147.51	210.93	9.0305	4.4212	43.776	131.21	1.0299	.47300	12.688

#1	-0.00001	-0.00005	-0.00118	.00373	.05377	.00011	.24474	.00070	.00144
#2	.00038	.00027	-0.00134	.00350	.10198	.00302	.24833	.00070	.00173

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.27700	.00040	.00298	.00000	1.0881	-0.00375	.00164	-0.01241	-0.02655
Stddev	.00466	.00006	.00283	.0017	.0015	.00328	.00019	.00610	.01306
%RSD	1.6827	14.734	95.090	82304.	.13923	87.495	11.902	49.195	49.195

#1	.28030	.00045	.00498	.00120	1.0892	-0.00607	.00150	-0.00809	-0.01731
#2	.27371	.00036	.00097	-0.00120	1.0870	-0.00143	.00178	-0.01672	-0.03579

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00764	.00350	.00313	.00014	.00128	-0.02990	.00104	.00064	.00174
Stddev	.00060	.00005	.00056	.00019	.00046	.02007	.00037	.00015	.00129
%RSD	7.8092	1.3230	17.829	132.80	36.169	67.127	35.151	23.406	73.825

#1	.00722	.00354	.00352	.00027	.00095	-0.04410	.00130	.00074	.00083
#2	.00807	.00347	.00274	.00001	.00160	-0.01571	.00078	.00053	.00265

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3153.6	55873.	6730.0
Stddev	4.1	80.	17.9
%RSD	.12877	.14398	.26524

#1	3150.8	55817.	6717.4
#2	3156.5	55930.	6742.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0015	4.2574	-0.00089	0.1600	0.00049	0.00019	-0.00028	4.7757	-0.00010
Stddev	.00031	.00227	.00189	.00034	.00045	.00005	.00182	.0213	.00009
%RSD	209.47	.53276	211.52	2.1381	90.339	27.682	655.53	.44670	89.481

#1	.00007	.42414	-.00223	.01624	.00081	.00015	-.00157	4.7606	-.00017
#2	-.00037	.42735	.00044	.01576	.00018	.00022	.00101	4.7908	-.00004

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.0525	0.0035	0.0169	1.0839	0.07443	0.00334	1.8298	0.8873	-0.0034
Stddev	.00004	.00000	.00033	.00172	.01810	.00061	.0111	.00041	.00034
%RSD	.73266	.71858	19.573	1.5911	24.322	18.324	.60887	.46632	100.29

#1	.00528	.00035	.00192	.10961	.08723	.00377	1.8219	.08844	-.00058
#2	.00522	.00035	.00145	.10717	.06163	.00291	1.8377	.08902	-.00010

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.1592	0.01018	0.00309	-0.00006	8.0132	-0.00192	-0.00198	0.01989	0.04256
Stddev	.00493	.00013	.00128	.00012	.0532	.00066	.00030	.00665	.01423
%RSD	1.1860	1.2914	41.614	198.08	.66459	34.363	14.987	33.443	33.443

#1	.41243	.01027	.00218	-.00015	7.9755	-.00145	-.00219	.02459	.05262
#2	.41940	.01009	.00399	.00002	8.0508	-.00238	-.00177	.01518	.03249

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.0683	0.00826	0.00209	0.00013	-0.00111	-0.02017	0.00060	0.01633	0.00179
Stddev	.00060	.00012	.00033	.00054	.00134	.01006	.00077	.00114	.00062
%RSD	8.8138	1.4391	15.659	414.60	121.09	49.880	128.87	6.9981	34.525

#1	.00726	.00835	.00186	-.00025	-.00016	-.01305	.00115	.01553	.00222
#2	.00641	.00818	.00232	.00051	-.00206	-.02728	.00005	.01714	.00135

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3156.7	56049.	6794.0
Stddev	13.9	119.	15.8
%RSD	.44118	.21175	.23241

#1	3166.5	56133.	6805.2
#2	3146.8	55965.	6782.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0005	.00065	.00162	.00909	.00003	.00000	-0.00112	.00122	-0.00038
Stddev	.00004	.00017	.00002	.00038	.00002	.00007	.00127	.00151	.00005
%RSD	79.607	25.722	1.1123	4.2318	62.389	1529.8	113.52	123.61	12.381

#1	-0.0002	.00053	.00161	.00937	.00004	.00005	-0.0022	.00229	-0.0034
#2	-0.0008	.00077	.00163	.00882	.00002	-0.0004	-0.00202	.00015	-0.0041

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0002	-0.0023	-0.00149	.00742	.05607	-0.00117	.00376	-0.0001	.00024
Stddev	.00019	.00012	.00025	.00059	.00217	.00023	.00453	.00006	.00016
%RSD	1153.8	54.046	16.574	8.0055	3.8684	19.597	120.41	583.49	64.862

#1	-0.0015	-0.0032	-0.00132	.00784	.05454	-0.00101	.00696	.00003	.00035
#2	.00012	-0.00014	-0.00167	.00700	.05760	-0.00133	.00056	-0.00006	.00013

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.14625	-0.00008	.00123	-0.00061	.02011	-0.00339	-0.00409	-0.03303	-0.07069
Stddev	.00457	.00022	.00034	.00001	.00303	.00051	.00176	.00511	.01093
%RSD	3.1246	282.88	27.357	1.8897	15.073	15.154	43.061	15.454	15.454

#1	.14302	-0.00023	.00147	-0.00061	.01797	-0.00375	-0.00284	-0.03664	-0.07842
#2	.14948	.00008	.00099	-0.00060	.02225	-0.00302	-0.00534	-0.02942	-0.06297

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00688	.00003	.00281	.00039	.00021	-0.04328	.00114	-0.00012	.00186
Stddev	.00016	.00008	.00145	.00006	.00153	.02129	.00022	.00024	.00140
%RSD	2.3251	280.50	51.658	14.691	720.10	49.201	19.128	202.52	75.114

#1	.00677	-0.00003	.00179	.00043	.00129	-0.02822	.00099	-0.00029	.00087
#2	.00699	.00008	.00384	.00035	-0.00087	-0.05833	.00130	.00005	.00284

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3130.4	55811.	6756.6
Stddev	5.3	113.	4.5
%RSD	.16787	.20226	.06627

#1	3134.1	55731.	6753.5
#2	3126.7	55890.	6759.8

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00741	47.238	k -.00079	k .00914	k .00036	k .00005	k .99174	k .00532	k -.00214	k .00136	k .00056
Stddev	.00007	.033	.00291	.00079	.00020	.00001	.00616	.00002	.00006	.00019	.00004
%RSD	.94734	.07065	368.55	8.6849	55.514	14.126	.62102	.30220	2.9454	14.105	7.9415

#1	k .00746	47.214	k .00127	k .00970	k .00022	k .00006	k .98739	k .00533	k -.00219	k .00123	k .00053
#2	k .00736	47.261	k -.00284	k .00858	k .00051	k .00005	k .99610	k .00530	k -.00210	k .00150	.00059

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00722	W 44.858	.04292	-0.0034	k .04573	k -.00040	k -.00115	249.19	k .00255	k .01849	k .00965
Stddev	.00043	.096	.01524	.00039	.00054	.00001	.00018	.15	.00028	.00107	.00064
%RSD	5.9215	.21501	35.507	114.55	1.1829	1.6442	15.494	.05984	11.123	5.7941	6.5857

#1	k .00752	44.926	.05369	-0.0061	k .04611	k -.00040	k -.00128	249.30	k .00235	k .01773	k .01010
#2	k .00691	44.789	.03214	-0.0006	k .04535	k -.00039	k -.00103	249.09	k .00275	k .01925	k .00920

Check ?	None	Chk Warn	None	None	None	None	None	Chk Pass	None	None	None
Value		50.000									
Range		-10.000%									

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k 5.0515	k -.03373	k -.00548	k -.04300	k -.09201	k -.00077	.00039	kW 5.2705	k .01966	k -.00024	k 10.489
Stddev	.0120	.00192	.00099	.01489	.03187	.00057	.00010	.0080	.00038	.00075	.152
%RSD	.23821	5.6909	18.073	34.638	34.638	73.216	25.467	.15123	1.9153	312.72	1.4504

#1	k 5.0430	k -.03508	k -.00619	k -.03247	k -.06948	k -.00037	.00046	k 5.2648	k .01993	k .00029	k 10.597
#2	k 5.0600	k -.03237	k -.00478	k -.05353	k -.11455	k -.00117	.00032	k 5.2761	k .01939	k -.00077	k 10.382

Check ?	Chk Pass	None	None	None	None	None	None	Chk Warn	None	None	Chk Pass
Value								5.0000			
Range								5.0000%			

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	k -.00224	k -.00001	k .11926
Stddev	.00017	.00066	.00009
%RSD	7.3861	4460.7	.07612

#1	k -.00236	k -.00048	k .11933
#2	k -.00213	k .00045	k .11920

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3098.5	54541.	6783.0
Stddev	6.3	51.	28.6
%RSD	.20462	.09270	.42141

#1	3103.0	54577.	6762.8
#2	3094.1	54505.	6803.2

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47970	.53503	1.0239	.54509	.48010	.45239	.00030	F 4.4564	.52253	.50618	.52823
Stddev	.00273	.00737	.0097	.00245	.00073	.00006	.00421	.0220	.00538	.00266	.00169
%RSD	.56969	1.3779	.94866	.45013	.15174	.01217	1408.3	.49363	1.0292	.52558	.31932

#1	.48163	.54024	1.0308	.54682	.48062	.45243	.00328	4.4719	.52633	.50806	.52942
#2	.47777	.52982	1.0170	.54335	.47959	.45235	-.00268	4.4408	.51873	.50430	.52704

Check ?	Chk Pass	None	Chk Fail	Chk Pass	Chk Pass	Chk Pass					
Value								5.0000			
Range								-10.490%			

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49575	F 2.1654	48.571	.98206	18.910	.50818	.49970	5.1446	.49968	1.0730	.98675
Stddev	.00363	.0133	.095	.00116	.061	.00158	.00406	.0356	.00241	.0147	.00481
%RSD	.73167	.61388	.19648	.11793	.32369	.31061	.81172	.69128	.48139	1.3698	.48700

#1	.49832	2.1748	48.638	.98288	18.954	.50707	.50257	5.1697	.50138	1.0834	.99014
#2	.49319	2.1560	48.503	.98124	18.867	.50930	.49683	5.1195	.49798	1.0626	.98335

Check ?	Chk Pass	Chk Fail	Chk Pass								
Value		2.5000									
Range		-10.490%									

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01648	1.0477	1.0224	F 4.3191	F 9.2429	1.0011	.47840	.00146	.50608	1.0157	-.02467
Stddev	.00136	.0109	.0079	.0309	.0662	.0050	.00024	.00015	.00042	.0076	.01316
%RSD	8.2812	1.0369	.77436	.71619	.71619	.50000	.05101	10.493	.08325	.74851	53.352

#1	.01744	1.0554	1.0280	4.3410	9.2897	1.0046	.47858	.00156	.50638	1.0211	-.03397
#2	.01551	1.0400	1.0168	4.2973	9.1961	.99752	.47823	.00135	.50578	1.0103	-.01536

Check ?	None	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None
Value				5.0000	10.700						
Range				-10.490%	-10.490%						

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.51913	.48067	W .44773
Stddev	.00427	.00195	.00080
%RSD	.82279	.40664	.17815

#1	.52215	.48205	.44829
#2	.51611	.47928	.44717

Check ?	Chk Pass	Chk Pass	Chk Warn
Value			.50000
Range			-10.000%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3129.2	55232.	6781.0
Stddev	11.7	310.	2.8
%RSD	.37429	.56094	.04058

#1	3121.0	55451.	6783.0
#2	3137.5	55012.	6779.1

Sample Name: CCB Acquired: 5/31/2015 2:15:36 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00030	.00044	-.00101	.00832	F .01925	.00010	.00230	.00875	-.00009	.00028	.00002	-.00136
Stddev	.00019	.00021	.00295	.00032	.00023	.00003	.00059	.00252	.00001	.00064	.00000	.00024
%RSD	64.504	46.891	291.64	3.8092	1.1768	31.384	25.734	28.743	8.5098	226.07	14.930	17.663

#1	.00043	.00059	.00108	.00854	.01941	.00012	.00188	.00697	-.00009	-.00017	.00002	-.00119
#2	.00016	.00029	-.00310	.00809	.01909	.00008	.00272	.01053	-.00008	.00074	.00003	-.00153

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass						
High Limit					.01000							
Low Limit					-.01000							

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00414	.02520	-.00020	.00037	.00003	.00035	.13688	.00005	.00244	-.00070	.01733	-.00195
Stddev	.00264	.01833	.00005	.00029	.00010	.00011	.02344	.00029	.00144	.00054	.00238	.00133
%RSD	63.725	72.735	24.329	77.035	348.52	30.326	17.127	533.35	58.929	77.388	13.736	68.083

#1	.00601	.03816	-.00017	.00017	-.00004	.00027	.15346	.00026	.00142	-.00108	.01565	-.00101
#2	.00227	.01224	-.00024	.00058	.00010	.00042	.12030	-.00015	.00345	-.00032	.01902	-.00289

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00130	-.02907	-.06222	.00106	.00053	.00174	.00044	-.00178	-.01388	-.00004	.00005	.00108
Stddev	.00550	.00710	.01520	.00056	.00014	.00044	.00016	.00066	.03129	.00060	.00047	.00091
%RSD	421.71	24.435	24.435	53.177	26.029	25.626	35.189	37.140	225.49	1608.8	883.23	84.336

#1	-.00519	-.03410	-.07297	.00146	.00063	.00142	.00033	-.00225	.00825	.00039	-.00028	.00172
#2	.00258	-.02405	-.05147	.00066	.00043	.00205	.00055	-.00131	-.03600	-.00046	.00039	.00044

Check ?	Chk Pass											
High Limit												
Low Limit												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3187.5	56619.	6898.5
Stddev	1.1	320.	18.3
%RSD	.03428	.56438	.26552

#1	3186.7	56845.	6885.5
#2	3188.3	56393.	6911.4

Sample Name: CCVL330103200 Acquired: 5/31/2015 2:17:59 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00914	.10619	.01408	.11184	.00969	.00099	.10607	.18170	.00512	.01035	.01055	.01354	.08450	2.9035
Stddev	.00032	.00124	.00069	.00070	.00007	.00005	.00091	.00234	.00008	.00033	.00026	.00040	.00238	.0066
%RSD	3.5459	1.1648	4.9104	.62564	.76781	4.7972	.85954	1.2858	1.6036	3.2099	2.4427	2.9258	2.8140	.22656

#1	.00937	.10532	.01359	.11233	.00964	.00103	.10542	.18005	.00517	.01059	.01037	.01382	.08282	2.8989
#2	.00891	.10707	.01457	.11134	.00974	.00096	.10671	.18336	.00506	.01012	.01073	.01326	.08618	2.9082

Check ?	Chk Pass													
Value														
Range														

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00883	.19318	.01031	.01952	1.1163	.04007	3.0333	.00844	.01328	.00851	.01417	.39983	.85563	.10015
Stddev	.00103	.00218	.00014	.00028	.0175	.00048	.0048	.00132	.00079	.00085	.00439	.00667	.01428	.00146
%RSD	11.725	1.1287	1.3536	1.4380	1.5674	1.2062	.15843	15.627	5.9494	10.005	31.018	1.6688	1.6688	1.4606

#1	.00810	.19164	.01021	.01972	1.1040	.03973	3.0367	.00751	.01383	.00912	.01106	.39511	.84553	.09912
#2	.00956	.19472	.01041	.01932	1.1287	.04042	3.0299	.00938	.01272	.00791	.01727	.40454	.86572	.10119

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass								
Value														
Range														

Elem	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00962	.01873	.01030	.01427	.04857	.01129	.01994	.01471
Stddev	.00010	.00210	.00039	.00230	.01186	.00063	.00111	.00076
%RSD	1.0491	11.238	3.7512	16.115	24.418	5.6033	5.5909	5.1399

Check ?	Chk Pass							
Value								
Range								

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3191.3	56454.	6847.4
Stddev	.3	135.	12.5
%RSD	.00830	.23870	.18191

#1	3191.5	56549.	6856.2
#2	3191.1	56359.	6838.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00039	.14629	.00966	W 68.712	.02443	.00046	.00135	315.80	.00051
Stddev	.00038	.00027	.00153	.135	.00006	.00003	.00240	2.95	.00016
%RSD	97.101	.18640	15.892	.19616	.26425	6.4180	178.06	.93329	31.116

#1	.00012	.14610	.00857	68.617	.02447	.00044	.00304	317.88	.00039
#2	.00067	.14649	.01074	68.807	.02438	.00048	-.00035	313.71	.00062

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.01000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02117	.00074	.00046	.27264	10.584	.07354	449.30	1.5736	.02182
Stddev	.00014	.00013	.00013	.00104	.009	.00078	5.09	.0018	.00060
%RSD	.64861	17.863	28.403	.38252	.08091	1.0557	1.1332	.11602	2.7442

#1	.02126	.00064	.00055	.27190	10.591	.07408	452.90	1.5723	.02224
#2	.02107	.00083	.00037	.27337	10.578	.07299	445.70	1.5749	.02140

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.701	.12603	.01947	.00486	F 510.93	.00792	.67928	11.408	24.413
Stddev	.110	.00059	.00058	.00131	1.11	.00202	.00223	.003	.007
%RSD	.65603	.47009	2.9804	26.872	.21678	25.498	.32886	.02972	.02972

#1	16.623	.12645	.01906	.00579	510.15	.00649	.67770	11.406	24.408
#2	16.778	.12562	.01988	.00394	511.71	.00935	.68086	11.410	24.418

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00309	1.0942	.00576	-.00046	-.00489	F -.11992	.00429	.06879	.00178
Stddev	.00034	.0030	.00129	.00037	.00087	.02970	.00005	.00059	.00118
%RSD	10.935	.27033	22.332	80.984	17.899	24.766	1.1460	.86099	66.215

#1	.00333	1.0921	.00485	-.00072	-.00427	-.14093	.00426	.06921	.00095
#2	.00285	1.0963	.00667	-.00020	-.00550	-.09892	.00433	.06837	.00262

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass				
High Limit						50.000			
Low Limit						-.10000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2886.8	52197.	6776.3
Stddev	8.7	8.	45.4
%RSD	.30116	.01524	.66987

#1	2880.7	52191.	6744.2
#2	2893.0	52203.	6808.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0032	.03188	.00274	W 14.219	.00487	.00013	.00037	65.972	.00046
Stddev	.00011	.00044	.00122	.070	.00030	.00003	.00013	.521	.00017
%RSD	34.117	1.3876	44.541	.49520	6.2379	21.015	34.700	.78977	36.161

#1	-0.0040	.03219	.00188	14.170	.00466	.00015	.00046	65.603	.00058
#2	-0.0024	.03157	.00360	14.269	.00509	.00011	.00028	66.340	.00034

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.01000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00474	.00048	-0.0064	.00036	2.0831	.01336	92.255	.32571	.00274
Stddev	.00013	.00029	.00011	.00012	.0075	.00075	.352	.00031	.00029
%RSD	2.6591	61.038	17.450	33.071	.35781	5.6452	.38119	.09621	10.608

#1	.00483	.00027	-0.00056	.00045	2.0884	.01283	92.504	.32548	.00294
#2	.00465	.00068	-0.00072	.00028	2.0779	.01389	92.006	.32593	.00253

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.1268	.02867	.00679	.00409	102.26	.00200	.13350	2.2387	4.7909
Stddev	.0644	.00071	.00351	.00241	.51	.00364	.00214	.0549	.1175
%RSD	2.0602	2.4919	51.753	58.986	.50105	182.15	1.6055	2.4529	2.4529

#1	3.0813	.02918	.00928	.00580	101.89	-.00058	.13501	2.1999	4.7078
#2	3.1724	.02817	.00431	.00239	102.62	.00458	.13198	2.2776	4.8740

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00434	.21887	.00436	.00000	-.00589	-.03659	-.00057	.01412	.00173
Stddev	.00122	.00179	.00085	.0002	.00319	.00809	.00016	.00027	.00155
%RSD	28.112	.81703	19.427	12842.	54.082	22.116	28.590	1.8976	89.577

#1	.00521	.21760	.00496	-.00015	-.00814	-.04231	-.00069	.01431	.00282
#2	.00348	.22013	.00377	.00014	-.00364	-.03087	-.00046	.01393	.00063

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3074.9	55103.	6796.2
Stddev	8.3	53.	1.0
%RSD	.27090	.09591	.01466

#1	3080.8	55141.	6796.9
#2	3069.0	55066.	6795.5

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02164	1.0787	W 2.4659	.52030	W 73.089	.96860	.02176	F 1.0222	363.37
Stddev	.00007	.0026	.0022	.00372	.321	.00119	.00005	.0078	.13
%RSD	.34188	.23672	.08826	.71482	.43892	.12244	.23502	.76033	.03477

#1	.02159	1.0805	2.4644	.51767	72.862	.96944	.02180	1.0167	363.28
#2	.02169	1.0769	2.4674	.52293	73.315	.96776	.02173	1.0277	363.46

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00		10.000			.10000	
Low Limit			3.2000		-.01000			-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05262	.25027	.08991	.12487	.41801	36.259	.59112	W 501.36	1.9027
Stddev	.00023	.00027	.00033	.00075	.00159	.036	.00497	4.36	.0003
%RSD	.44543	.10965	.36488	.60241	.38095	.09972	.84135	.86976	.01628

#1	.05245	.25008	.09014	.12434	.41689	36.233	.58761	504.44	1.9029
#2	.05278	.25047	.08967	.12540	.41914	36.284	.59464	498.27	1.9025

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								500.00	
Low Limit								-.10000	

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52373	44.071	.35704	W 5.6234	.22880	F 542.81	.27886	1.7782	16.543
Stddev	.00204	.614	.00038	.0093	.00031	2.44	.00018	.0093	.135
%RSD	.38943	1.3935	.10517	.16594	.13752	.44992	.06376	.52332	.81318

#1	.52518	43.637	.35730	5.6168	.22858	541.09	.27874	1.7717	16.448
#2	.52229	44.506	.35677	5.6300	.22902	544.54	.27899	1.7848	16.638

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				2.0000		200.00			
Low Limit				-1.0000		-.20000			

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	35.402	.94315	1.6375	.49094	.48556	.88664	.89664	.25494	.28426
Stddev	.288	.00071	.0003	.00465	.00048	.00299	.00610	.00075	.00281
%RSD	.81318	.07549	.01994	.94788	.09838	.33745	.67978	.29407	.98995

#1	35.198	.94265	1.6378	.49423	.48590	.88453	.90095	.25441	.28227
#2	35.605	.94365	1.6373	.48765	.48523	.88876	.89233	.25547	.28625

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.20592
Stddev	.00128
%RSD	.62042

#1	.20501
#2	.20682

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 69708-E-1-B MS @2 Acquired: 5/31/2015 2:26:47 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: broanderl Prep Date: Custom ID2: Custom ID3:
Comment: 279424 200.7 FGD

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2772.5	50172.	6408.1
Stddev	4.7	72.	11.0
%RSD	.17049	.14365	.17155
#1	2769.1	50223.	6415.9
#2	2775.8	50121.	6400.3

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02256	1.0868	W 2.4459	.52915	W 72.730	.98696	.02207	F 1.0436	355.57
Stddev	.00086	.0021	.0514	.00911	.345	.00270	.00013	.0064	5.66
%RSD	3.7985	.19210	2.1030	1.7215	.47382	.27309	.59312	.61328	1.5924

#1	.02195	1.0883	2.4095	.53559	72.974	.98505	.02198	1.0481	351.57
#2	.02316	1.0853	2.4823	.52271	72.487	.98886	.02216	1.0391	359.58

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00		10.000			.10000	
Low Limit			3.2000		-.01000			-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05338	.25570	.09341	.12751	.41781	36.621	.60290	490.83	1.8817
Stddev	.00014	.00035	.00033	.00092	.00092	.147	.00912	1.79	.0104
%RSD	.26032	.13803	.35538	.71887	.21977	.40042	1.5122	.36549	.55083

#1	.05348	.25545	.09365	.12686	.41716	36.517	.60935	489.56	1.8744
#2	.05328	.25595	.09318	.12816	.41846	36.725	.59646	492.10	1.8891

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.53978	44.733	.36236	W 5.7277	.23466	F 539.87	.28355	1.7972	16.592
Stddev	.00060	.417	.00110	.0332	.00205	2.36	.00676	.0040	.012
%RSD	.11154	.93295	.30433	.57992	.87238	.43774	2.3851	.22329	.07378

#1	.54021	44.438	.36314	5.7511	.23611	541.54	.28834	1.8001	16.584
#2	.53936	45.028	.36158	5.7042	.23322	538.20	.27877	1.7944	16.601

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				2.0000		200.00			
Low Limit				-1.0000		-.20000			

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	35.508	.96246	1.6385	.49849	.49388	.90134	.93456	.25852	.28338
Stddev	.026	.00097	.0041	.00364	.00275	.00088	.06467	.00089	.00326
%RSD	.07378	.10085	.25200	.73069	.55782	.09743	6.9199	.34297	1.1513

#1	35.489	.96178	1.6356	.49592	.49193	.90196	.88883	.25789	.28108
#2	35.526	.96315	1.6415	.50107	.49582	.90072	.98029	.25914	.28569

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.21462
Stddev	.00172
%RSD	.80372

#1	.21584
#2	.21340

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 69708-E-1-C MSD @2 Acquired: 5/31/2015 2:29:47 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: broanderl Prep Date: Custom ID2: Custom ID3:
Comment: 279424 200.7 FGD

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2810.1	51223.	6647.8
Stddev	4.1	168.	29.5
%RSD	.14478	.32856	.44389
#1	2807.2	51342.	6668.7
#2	2813.0	51104.	6627.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04765	1.0634	.21162	W 68.836	.11877	.04279	.00241	336.19	.05283
Stddev	.00003	.0010	.00039	.003	.00012	.00004	.00328	3.63	.00059
%RSD	.07342	.09163	.18407	.00481	.09758	.08608	136.27	1.0809	1.1184

#1	.04767	1.0641	.21135	68.834	.11885	.04281	.00009	333.62	.05324
#2	.04762	1.0627	.21190	68.838	.11868	.04276	.00472	338.76	.05241

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.01000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06683	.04504	.05004	.80894	30.275	.17725	469.75	1.6179	.07042
Stddev	.00028	.00000	.00052	.00078	.095	.00015	1.76	.0068	.00001
%RSD	.41372	.00634	1.0439	.09626	.31454	.08484	.37514	.41963	.01276

#1	.06703	.04504	.04967	.80949	30.342	.17715	468.51	1.6131	.07043
#2	.06664	.04504	.05041	.80839	30.207	.17736	471.00	1.6227	.07042

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	37.556	.17094	W 2.2034	.08992	F 514.68	.11185	.88842	15.895	34.016
Stddev	.140	.00075	.0108	.00032	.10	.00019	.00664	.043	.092
%RSD	.37218	.43639	.48922	.35163	.01872	.17106	.74696	.27063	.27063

#1	37.457	.17146	2.2111	.08969	514.75	.11172	.89312	15.926	34.081
#2	37.655	.17041	2.1958	.09014	514.61	.11199	.88373	15.865	33.950

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			2.0000		200.00				
Low Limit			-1.0000		-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09840	1.1399	.19953	.04759	.17367	.39678	.05451	.24351	.03950
Stddev	.00036	.0015	.00041	.00024	.00255	.04308	.00002	.00154	.00158
%RSD	.36649	.13306	.20612	.49548	1.4690	10.857	.03160	.63316	3.9976

#1	.09814	1.1409	.19982	.04742	.17547	.36632	.05452	.24242	.03838
#2	.09865	1.1388	.19924	.04775	.17186	.42724	.05450	.24460	.04061

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2790.7	50472.	6477.0
Stddev	2.9	148.	16.2
%RSD	.10246	.29259	.25013

#1	2792.7	50577.	6488.4
#2	2788.7	50368.	6465.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00005	.07965	.00237	.34727	.04943	.00011	-0.00028	12.337	-0.00012
Stddev	.00025	.00082	.00119	.00727	.00024	.00006	.00314	.001	.00007
%RSD	479.74	1.0273	50.361	2.0928	.47944	57.579	1109.3	.00702	53.949

#1	-0.00022	.07907	.00152	.35241	.04926	.00006	.00194	12.337	-0.00008
#2	.00012	.08023	.00321	.34213	.04960	.00015	-.00251	12.336	-.00017

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	.00069	-0.00103	.00375	3.8022	.00231	2.3679	.00026	.00656
Stddev	.00040	.00002	.00044	.00042	.0065	.00096	.0152	.00002	.00006
%RSD	251.72	3.3668	43.225	11.337	.17071	41.365	.64131	7.1374	.99054

#1	-0.00012	.00071	-.00134	.00405	3.8067	.00299	2.3572	.00027	.00651
#2	.00044	.00067	-.00071	.00345	3.7976	.00164	2.3787	.00025	.00661

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.8718	.00092	.00303	.00138	7.3153	-0.00189	.00082	1.4404	3.0824
Stddev	.0079	.00087	.00197	.00146	.0557	.00126	.00129	.0153	.0326
%RSD	.20355	94.262	64.941	105.90	.76097	66.670	157.08	1.0592	1.0592

#1	3.8774	.00031	.00164	.00242	7.2760	-.00100	.00174	1.4512	3.1055
#2	3.8662	.00153	.00442	.00035	7.3547	-.00278	-.00009	1.4296	3.0593

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00437	.11913	.00289	.00007	-0.00235	-0.02520	.00208	.00124	.00159
Stddev	.00057	.00033	.00139	.00040	.00144	.02535	.00018	.00034	.00018
%RSD	13.079	.27870	48.168	579.49	61.170	100.60	8.5073	27.536	11.206

#1	.00478	.11889	.00388	-.00021	-.00336	-.00727	.00196	.00148	.00171
#2	.00397	.11936	.00191	.00035	-.00133	-.04313	.00221	.00100	.00146

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3198.2	57453.	7023.8
Stddev	12.7	32.	24.8
%RSD	.39649	.05598	.35333

#1	3207.1	57430.	7006.2
#2	3189.2	57476.	7041.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0043	.00850	-0.0091	.13452	.02074	-0.0004	-0.00074	8.5817	.00016
Stddev	.00026	.00132	.00071	.01331	.00183	.00004	.00021	.7579	.00008
%RSD	59.583	15.506	78.012	9.8959	8.8471	107.25	28.901	8.8320	50.110

#1	-0.0061	.00757	-0.0140	.12510	.02204	-0.0007	-0.00059	9.1176	.00010
#2	-0.0025	.00943	-0.0041	.14393	.01944	-0.0001	-0.00089	8.0457	.00022

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00019	.00011	-0.0089	.02635	1.3222	-0.0001	5.2002	.00292	-0.0010
Stddev	.00024	.00025	.00009	.00063	.1123	.00108	.0149	.00001	.00036
%RSD	129.36	225.76	9.8314	2.4025	8.4958	10792.	.28710	.42439	353.37

#1	.00036	-0.0006	-0.0095	.02679	1.4016	-0.0077	5.2108	.00293	.00015
#2	.00002	.00028	-0.0083	.02590	1.2428	.00075	5.1897	.00291	-0.0036

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.2823	.00109	.00576	.00097	9.9696	-0.0220	.00210	.81167	1.7370
Stddev	.3086	.00005	.00339	.00045	.1033	.00016	.00333	.06091	.1303
%RSD	9.4034	4.7090	58.934	46.315	1.0365	7.3487	158.67	7.5045	7.5045

#1	3.5005	.00105	.00336	.00065	9.8966	-0.0209	-0.00026	.85474	1.8291
#2	3.0640	.00112	.00816	.00128	10.043	-0.0232	.00446	.76860	1.6448

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00373	.03692	.00176	.00028	-0.0223	.01216	.00034	.00235	.00183
Stddev	.00099	.00277	.00011	.00007	.00054	.00946	.00013	.00044	.00004
%RSD	26.568	7.4930	6.0894	24.834	24.387	77.797	39.200	18.945	2.3847

#1	.00303	.03888	.00184	.00033	-0.0262	.00547	.00025	.00203	.00180
#2	.00444	.03496	.00169	.00023	-0.0185	.01885	.00044	.00266	.00186

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3117.0	56182.	6606.1
Stddev	.5	82.	443.5
%RSD	.01548	.14525	6.7129

#1	3116.7	56124.	6292.6
#2	3117.3	56240.	6919.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	.03176	.01477	W 66.447	.02162	.00021	-.00157	379.67	-.00029
Stddev	.00064	.00107	.00080	.109	.00003	.00004	.00016	.57	.00007
%RSD	405.59	3.3761	5.4444	.16476	.14236	17.113	10.230	.15073	22.995

#1	.00061	.03252	.01534	66.524	.02160	.00023	-.00168	379.27	-.00024
#2	-.00029	.03100	.01420	66.370	.02164	.00018	-.00145	380.08	-.00034

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.01000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00787	.00110	.00090	.00922	10.067	.07430	364.35	1.3082	.02990
Stddev	.00020	.00033	.00029	.00033	.053	.00021	1.04	.0008	.00047
%RSD	2.5760	29.721	31.710	3.5485	.53097	.28206	.28587	.05921	1.5728

#1	.00801	.00087	.00070	.00945	10.105	.07415	365.08	1.3088	.02956
#2	.00773	.00133	.00111	.00899	10.029	.07445	363.61	1.3077	.03023

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.757	.04582	.06852	.00243	F 440.73	.00793	.25862	10.051	21.508
Stddev	.085	.00059	.00459	.00096	.15	.00337	.00146	.056	.119
%RSD	.66962	1.2773	6.6932	39.494	.03466	42.526	.56360	.55530	.55530

#1	12.696	.04540	.06528	.00175	440.62	.00554	.25758	10.090	21.593
#2	12.817	.04623	.07177	.00311	440.83	.01031	.25965	10.011	21.424

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00548	1.4023	.00628	-.00004	-.00612	W -.07165	.00379	.02749	.00149
Stddev	.00057	.0073	.00101	.00013	.00145	.02071	.00035	.00021	.00065
%RSD	10.382	.52321	16.108	305.66	23.616	28.909	9.1478	.76470	43.542

#1	.00588	1.4074	.00556	.00005	-.00714	-.05701	.00354	.02734	.00103
#2	.00508	1.3971	.00699	-.00014	-.00510	-.08630	.00403	.02763	.00195

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2829.6	51553.	6725.7
Stddev	17.5	82.	36.0
%RSD	.61980	.15833	.53557

#1	2817.2	51495.	6700.2
#2	2842.0	51611.	6751.2

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00732	46.666	k -.00021	k .13847	k .00051	k .00011	k .99170	k .00440	k -.00200	k .00161	k .00044
Stddev	.00041	.163	.00238	.00701	.00018	.00004	.01125	.00193	.00024	.00019	.00003
%RSD	5.6023	.34906	1145.9	5.0637	35.119	39.187	1.1342	43.788	12.195	11.611	7.6004

#1	k .00703	46.781	k .00147	k .14342	k .00064	k .00014	k .99965	k .00577	k -.00217	k .00147	k .00046
#2	k .00761	46.551	k -.00189	k .13351	k .00038	k .00008	k .98374	k .00304	k -.00183	k .00174	k .00041

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00757	W 44.780	.07605	.00023	k .04016	k -.00051	k -.00151	250.32	k .00251	k .00808	k .00856
Stddev	.00004	.255	.01799	.00028	.00292	.00005	.00051	.84	.00017	.00137	.00003
%RSD	.56264	.56968	23.657	121.43	7.2812	10.142	33.878	.33441	6.6168	16.917	.33726

#1	k .00760	44.600	.08877	.00003	k .03810	k -.00047	k -.00187	250.91	k .00262	k .00711	k .00854
#2	k .00754	44.960	.06333	.00043	k .04223	k -.00055	k -.00115	249.73	k .00239	k .00905	k .00858

Check ?	None	Chk Warn	None	None	None	None	None	Chk Pass	None	None	None
Value		50.000									
Range		-10.000%									

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k 5.1320	k -.03480	k -.00457	k -.04757	k -.10179	k .00068	.00031	k 5.1855	k .01928	k .00028	kW 10.533
Stddev	.0504	.00134	.00332	.00003	.00006	.00036	.00005	.0065	.00080	.00002	.004
%RSD	.98194	3.8534	72.574	.05713	.05713	53.072	16.736	.12559	4.1260	5.6116	.03996

#1	k 5.1677	k -.03385	k -.00222	k -.04755	k -.10175	k .00042	.00035	k 5.1901	k .01984	k .00027	k 10.536
#2	k 5.0964	k -.03575	k -.00691	k -.04759	k -.10183	k .00093	.00027	k 5.1809	k .01872	k .00029	k 10.530

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value											10.000
Range											5.00000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	k -.00192	k -.00115	k .12814
Stddev	.00016	.00034	.00197
%RSD	8.1030	29.561	1.5345

#1	k -.00203	k -.00139	k .12675
#2	k -.00181	k -.00091	k .12953

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3132.6	55774.	7027.5
Stddev	4.2	2.	5.6
%RSD	.13529	.00283	.07930

#1	3129.6	55776.	7023.6
#2	3135.6	55773.	7031.4

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48272	.52535	1.0367	F .63162	.48673	.45492	-.00050	W 4.4903	.51950	.51161	.53356
Stddev	.00385	.00043	.0002	.00618	.00379	.00433	.00252	.0869	.00136	.00174	.00091
%RSD	.79777	.08121	.02013	.97859	.77914	.95207	503.08	1.9349	.26259	.34016	.17085

#1	.47999	.52565	1.0368	.63599	.48405	.45186	.00128	4.4288	.52046	.51284	.53421
#2	.48544	.52505	1.0365	.62725	.48941	.45799	-.00228	4.5517	.51853	.51038	.53292

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Warn	Chk Pass	Chk Pass	Chk Pass
Value				.50000				5.0000			
Range				10.490%				-10.000%			

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49758	F 2.1762	49.136	1.0045	18.834	.50358	.50422	5.1040	.50475	1.0705	.99099
Stddev	.00328	.0232	.425	.0108	.141	.00328	.00187	.0344	.00348	.0005	.00462
%RSD	.65970	1.0674	.86477	1.0715	.74662	.65196	.37006	.67459	.68866	.04902	.46660

#1	.49526	2.1598	48.835	.99687	18.734	.50126	.50553	5.0796	.50721	1.0701	.99426
#2	.49990	2.1926	49.436	1.0121	18.933	.50590	.50290	5.1283	.50229	1.0709	.98772

Check ?	Chk Pass	Chk Fail	Chk Pass								
Value		2.5000									
Range		-10.490%									

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03842	1.0497	1.0252	F 4.3554	F 9.3205	1.0047	.48436	.00055	.50517	1.0147	-.02570
Stddev	.00327	.0001	.0008	.0669	.1431	.0017	.00460	.00216	.00305	.0021	.03984
%RSD	8.5050	.01171	.07471	1.5351	1.5351	.16511	.95024	396.09	.60463	.20434	154.99

#1	.04073	1.0498	1.0246	4.3081	9.2193	1.0059	.48111	-.00098	.50301	1.0161	.00247
#2	.03611	1.0497	1.0257	4.4026	9.4217	1.0035	.48762	.00208	.50733	1.0132	-.05387

Check ?	None	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None
Value				5.0000	10.700						
Range				-10.490%	-10.490%						

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.51193	.47735	.45747
Stddev	.00429	.00499	.00701
%RSD	.83754	1.0462	1.5323

#1	.50890	.47382	.45251
#2	.51496	.48088	.46243

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3126.1	55697.	6978.8
Stddev	6.3	295.	21.4
%RSD	.20117	.52888	.30673

#1	3121.6	55906.	6993.9
#2	3130.5	55489.	6963.6

Sample Name: CCB Acquired: 5/31/2015 2:49:28 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00046	.00367	-.00095	W .08021	.00048	.00025	.00192	F .14795	-.00010	.00029	.00015
Stddev	.00076	.00406	.00420	.00752	.00001	.00017	.00110	.09340	.00014	.00005	.00033
%RSD	164.66	110.42	444.50	9.3754	1.9002	67.042	57.113	63.126	139.25	18.085	224.66

#1	-.00008	.00654	-.00392	.08553	.00049	.00013	.00115	.08191	-.00021	.00025	-.00009
#2	.00100	.00081	.00203	.07490	.00047	.00037	.00270	.21399	.00000	.00032	.00038

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				.05000				.05000			
Low Limit				-.05000				-.05000			

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00110	.01263	.05606	-.00074	F .36464	.00174	.00035	.20040	.00033	.00170	-.00183
Stddev	.00070	.00916	.04338	.00098	.50763	.00248	.00006	.03682	.00028	.00043	.00068
%RSD	63.495	72.513	77.383	132.55	139.21	142.57	18.831	18.373	86.613	25.206	37.123

#1	-.00159	.00615	.02538	-.00005	.00569	-.00001	.00039	.17436	.00053	.00140	-.00231
#2	-.00061	.01911	.08673	-.00143	.72359	.00349	.00030	.22644	.00013	.00200	-.00135

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass					
High Limit					.10000						
Low Limit					-.10000						

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07590	-.00145	.00226	-.01970	-.04215	.00124	.00084	.00428	.00096	.00070	-.02589
Stddev	.05507	.00171	.00118	.01003	.02147	.00058	.00056	.00233	.00071	.00015	.02928
%RSD	72.551	118.39	52.068	50.924	50.924	46.978	67.383	54.421	74.324	21.824	113.12

#1	.11484	-.00024	.00143	-.02679	-.05733	.00166	.00044	.00263	.00046	.00059	-.04659
#2	.03696	-.00266	.00309	-.01261	-.02697	.00083	.00124	.00593	.00147	.00081	-.00518

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00108	.00044	.00274
Stddev	.00007	.00155	.00027
%RSD	6.8150	352.65	9.8468

#1	.00103	-.00066	.00255
#2	.00114	.00153	.00293

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3159.5	56573.	6920.7
Stddev	.7	485.	25.9
%RSD	.02138	.85804	.37379

#1	3159.0	56917.	6902.4
#2	3160.0	56230.	6939.0

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00936	.10896	.01406	F .17784	.01009	.00102	.10723	.18669	.00547	.01076	.01118	.01439
Stddev	.00037	.00032	.00256	.00089	.00009	.00002	.00090	.00130	.00008	.00022	.00001	.00070
%RSD	3.9384	.29271	18.217	.49770	.89009	1.5257	.83963	.69663	1.3982	2.0209	.12432	4.8470

#1	.00910	.10918	.01587	.17846	.01002	.00101	.10660	.18761	.00542	.01061	.01117	.01488
#2	.00962	.10873	.01225	.17721	.01015	.00103	.10787	.18577	.00552	.01091	.01119	.01389

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass							
Value				.10000								
Range				30.000%								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08769	3.1251	.00958	.20085	.01053	.02023	1.1609	.04166	3.1290	.00887	.02917	.01071
Stddev	.00042	.0135	.00136	.00235	.00008	.00003	.0065	.00047	.0052	.00004	.00071	.00141
%RSD	.47355	.43215	14.207	1.1699	.77808	.12657	.56055	1.1212	.16678	.41391	2.4268	13.147

#1	.08740	3.1346	.00862	.19918	.01047	.02021	1.1563	.04133	3.1327	.00884	.02867	.01171
#2	.08799	3.1155	.01054	.20251	.01058	.02025	1.1655	.04199	3.1254	.00890	.02967	.00971

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01611	.41522	.88857	.10339	.01022	.01716	.01055	.01656	.07206	.01080	.02030	.01510
Stddev	.00007	.00313	.00670	.00105	.00011	.00031	.00020	.00015	.01647	.00005	.00010	.00014
%RSD	.45895	.75405	.75405	1.0161	1.0982	1.8189	1.8836	.92583	22.862	.48969	.50407	.95623

#1	.01606	.41743	.89331	.10414	.01030	.01694	.01041	.01645	.06041	.01076	.02023	.01500
#2	.01616	.41301	.88383	.10265	.01014	.01738	.01069	.01666	.08371	.01083	.02037	.01521

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3137.2	56298.	6856.4
Stddev	2.6	410.	10.0
%RSD	.08332	.72819	.14577

#1	3135.4	56588.	6849.3
#2	3139.1	56008.	6863.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00013	.06410	.00504	.56149	.04912	.00003	.00032	26.044	.00000
Stddev	.00030	.00123	.00228	.00073	.00015	.00006	.00061	.076	.0001
%RSD	236.11	1.9260	45.273	.13041	.31337	190.31	187.61	.29172	49545.

#1	-.00008	.06497	.00665	.56097	.04902	.00008	-.00011	25.990	-.00010
#2	.00034	.06323	.00342	.56200	.04923	-.00001	.00075	26.097	.00010

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00027	.00063	.00003	.10612	1.8424	.06119	6.1364	.01654	.03651
Stddev	.00025	.00001	.00044	.00106	.0249	.00172	.0095	.00004	.00034
%RSD	93.583	1.0026	1527.4	.99429	1.3496	2.8149	.15440	.26767	.93620

#1	.00009	.00064	-.00028	.10687	1.8248	.05997	6.1297	.01650	.03626
#2	.00045	.00063	.00034	.10537	1.8600	.06240	6.1431	.01657	.03675

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.2648	.00256	.01279	.00164	26.835	.00160	.00287	.30130	.64479
Stddev	.0229	.00002	.00211	.00123	.435	.00140	.00138	.00385	.00824
%RSD	.70060	.66598	16.536	74.768	1.6199	87.488	48.031	1.2778	1.2778

#1	3.2486	.00254	.01129	.00251	27.142	.00259	.00190	.29858	.63896
#2	3.2810	.00257	.01428	.00077	26.527	.00061	.00385	.30402	.65061

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00453	.08834	.00247	.00186	-.00190	-.01065	.00042	.00140	.00164
Stddev	.00164	.00102	.00027	.00007	.00111	.00875	.00040	.00026	.00099
%RSD	36.336	1.1501	11.154	4.0162	58.230	82.113	93.884	18.783	60.437

#1	.00336	.08762	.00227	.00181	-.00269	-.00447	.00014	.00121	.00094
#2	.00569	.08906	.00266	.00191	-.00112	-.01684	.00071	.00158	.00234

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3099.9	56090.	6915.5
Stddev	11.1	38.	13.3
%RSD	.35652	.06841	.19229

#1	3107.8	56117.	6906.1
#2	3092.1	56063.	6924.9

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0034	9.1328	.00073	.19217	.01379	.00337	.00025	109.11	.00186
Stddev	.00007	.0241	.00411	.00074	.00001	.00001	.00198	.10	.00024
%RSD	19.286	.26373	564.57	.38750	.07552	.35434	793.98	.08977	12.993

#1	-0.0030	9.1158	.00363	.19164	.01378	.00338	-.00115	109.04	.00169
#2	-0.0039	9.1498	-.00218	.19270	.01379	.00336	.00165	109.17	.00203

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.11835	.00266	.07830	2.5585	1.1014	.11156	41.199	1.9505	-.00240
Stddev	.00080	.00018	.00084	.0054	.0220	.00069	.110	.0010	.00036
%RSD	.67844	6.6074	1.0670	.21123	1.9998	.62085	.26751	.04990	14.940

#1	.11892	.00254	.07889	2.5623	1.0859	.11107	41.276	1.9498	-.00265
#2	.11778	.00279	.07771	2.5546	1.1170	.11205	41.121	1.9512	-.00214

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.5461	.21566	.01507	.00547	W 190.25	-.00278	.00179	1.3344	2.8555
Stddev	.0065	.00046	.00233	.00183	.03	.00020	.00571	.0090	.0193
%RSD	.09867	.21358	15.447	33.477	.01481	7.2883	318.66	.67773	.67773

#1	6.5415	.21598	.01672	.00677	190.27	-.00293	.00583	1.3280	2.8418
#2	6.5507	.21533	.01343	.00418	190.23	-.00264	-.00225	1.3408	2.8692

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					180.00				
Low Limit					-15000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00521	.19129	.00327	.00081	-.00828	-.01362	-.00042	.35031	.00247
Stddev	.00079	.00018	.00052	.00008	.00458	.01531	.00054	.00112	.00063
%RSD	15.205	.09576	16.039	9.4299	55.317	112.45	127.84	.31956	25.551

#1	.00577	.19116	.00364	.00086	-.01152	-.02445	-.00004	.35111	.00202
#2	.00465	.19141	.00290	.00076	-.00504	-.00279	-.00080	.34952	.00291

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3116.7	56514.	7138.6
Stddev	13.6	104.	4.0
%RSD	.43559	.18317	.05565

#1	3107.1	56588.	7135.7
#2	3126.3	56441.	7141.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0067	.00408	-0.00208	.05069	.00003	.00008	-0.00298	.04107	-0.00002
Stddev	.00038	.00089	.00019	.00322	.00016	.00009	.00014	.02287	.00024
%RSD	56.913	21.723	9.2734	6.3606	579.97	119.50	4.6061	55.683	1481.0

#1	-0.00094	.00470	-0.00221	.05297	.00014	.00001	-0.00288	.05724	.00015
#2	-0.00040	.00345	-0.00194	.04841	-0.00009	.00014	-0.00308	.02490	-0.00018

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00003	-0.00007	-0.00146	.00112	.02609	.00027	.03976	.00063	.00017
Stddev	.00013	.00004	.00005	.00166	.04104	.00003	.04887	.00059	.00024
%RSD	459.30	56.855	3.3749	148.74	157.28	11.176	122.91	94.107	136.11

#1	.00012	-0.00004	-0.00150	.00229	.05511	.00029	.07432	.00105	.00034
#2	-0.00006	-0.00010	-0.00143	-0.00006	-0.00293	.00025	.00520	.00021	.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10222	.00020	.00152	-0.00111	.07227	-0.00292	-0.00198	-0.04530	-0.09695
Stddev	.00061	.00013	.00033	.00138	.03113	.00066	.00123	.00077	.00166
%RSD	.59352	64.363	21.452	124.41	43.074	22.632	62.047	1.7071	1.7071

#1	.10179	.00028	.00176	-0.00013	.09429	-0.00246	-0.00285	-0.04585	-0.09812
#2	.10264	.00011	.00129	-0.00208	.05026	-0.00339	-0.00111	-0.04476	-0.09578

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00338	.00006	.00213	.00034	-0.00127	-0.02836	.00066	.00136	.00195
Stddev	.00034	.00008	.00070	.00003	.00089	.00426	.00024	.00023	.00067
%RSD	9.9533	127.84	32.901	8.1843	69.753	15.033	36.202	16.996	34.314

#1	.00315	.00012	.00263	.00036	-0.00190	-0.02534	.00049	.00153	.00242
#2	.00362	.00001	.00164	.00032	-0.00064	-0.03137	.00083	.00120	.00147

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3133.9	56744.	6972.9
Stddev	2.4	123.	2.1
%RSD	.07705	.21684	.03064

#1	3135.6	56657.	6971.4
#2	3132.2	56831.	6974.5

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00795	47.561	-0.00252	.04891	.00061	.00009	W 1.0604	.04834	-0.00028	-0.00029	.00048
Stddev	.00056	.120	.00380	.00020	.00014	.00002	.0064	.02868	.00024	.00028	.00004
%RSD	6.9960	.25167	150.77	.40747	23.392	18.500	.60327	59.321	85.110	98.086	8.7140

#1	-0.00755	47.476	.00017	.04905	.00071	.00007	1.0649	.06862	-0.00011	-0.00049	.00051
#2	-0.00834	47.646	-0.00521	.04877	.00051	.00010	1.0559	.02806	-0.00045	-0.00009	.00045

Check ?	None	Chk Pass	None	None	None	None	Chk Warn	None	None	None	None
Value							1.0000				
Range							5.0000%				

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00199	45.782	.04839	.00000	.05370	-0.00159	-0.00039	254.93	.00219	.00681	.00038
Stddev	.00007	.383	.00204	.0003	.01899	.00017	.00001	1.56	.00003	.00348	.00050
%RSD	3.6868	.83686	4.2258	68579.	35.365	10.690	3.7574	.61193	1.3305	51.098	130.59

#1	-0.00194	45.511	.04694	-0.00018	.04027	-0.00171	-0.00038	253.83	.00221	.00435	.00073
#2	-0.00205	46.053	.04983	.00018	.06712	-0.00147	-0.00040	256.04	.00217	.00928	.00003

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.1992	-0.01307	.00800	-0.04696	-1.10048	-0.00150	.00040	5.0182	-0.01170	.00147	W 10.825
Stddev	.0048	.00021	.00363	.00084	.00180	.00170	.00005	.0010	.00021	.00229	.001
%RSD	.09294	1.5989	45.381	1.7914	1.7914	113.62	13.074	.01958	1.8113	156.03	.01337

#1	5.2026	-.01322	.00544	-.04636	-.09921	-.00270	.00043	5.0189	-.01185	-.00015	10.826
#2	5.1958	-.01292	.01057	-.04755	-.10176	-.00029	.00036	5.0175	-.01155	.00309	10.824

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value											10.000
Range											5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00349	-0.00095	-.13316
Stddev	.00019	.00033	.00148
%RSD	5.4068	34.488	1.1108

#1	.00363	-.00118	-.13421
#2	.00336	-.00072	-.13212

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3078.9	54639.	6845.2
Stddev	4.2	69.	53.0
%RSD	.13682	.12548	.77459

#1	3081.9	54591.	6882.7
#2	3076.0	54688.	6807.7

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49021	.53819	1.0374	F .58876	.49573	.46250	.00038	4.5650	.52320	.51847	.53200	.50652
Stddev	.00152	.00024	.0101	.00268	.00033	.00074	.00193	.0240	.00209	.00056	.00089	.00077
%RSD	.31025	.04410	.97022	.45458	.06636	.15906	509.15	.52649	.39896	.10725	.16682	.15183

#1	.48913	.53802	1.0303	.58687	.49596	.46302	-.00098	4.5820	.52172	.51807	.53137	.50597
#2	.49128	.53835	1.0446	.59065	.49550	.46198	.00174	4.5480	.52467	.51886	.53263	.50706

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass				
Value				.50000								
Range				10.490%								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 2.2001	49.856	1.0170	19.069	.50450	.50950	5.1838	.51116	1.0839	1.0087	.02936	1.0669
Stddev	.0232	.026	.0007	.040	.00008	.00095	.0046	.00022	.0075	.0055	.01036	.0119
%RSD	1.0543	.05297	.07162	.21030	.01549	.18671	.08817	.04345	.69175	.54893	35.277	1.1150

#1	2.2165	49.874	1.0175	19.041	.50445	.50883	5.1870	.51101	1.0786	1.0048	.03668	1.0585
#2	2.1837	49.837	1.0165	19.097	.50456	.51017	5.1806	.51132	1.0892	1.0126	.02203	1.0753

Check ?	Chk Fail	Chk Pass	None	Chk Pass								
Value	2.5000											
Range	-10.490%											

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0474	F 4.3905	F 9.3956	1.0213	.49210	-.00025	.50604	1.0340	-.01957	.52118	.47604	.46410
Stddev	.0136	.0076	.0163	.0000	.00021	.00050	.00057	.0118	.00226	.00107	.00155	.00471
%RSD	1.2980	.17298	.17298	.00039	.04209	197.26	.11265	1.1433	11.563	.20605	.32636	1.0139

#1	1.0378	4.3958	9.4071	1.0213	.49224	.00010	.50644	1.0257	-.01797	.52042	.47714	.46743
#2	1.0570	4.3851	9.3841	1.0213	.49195	-.00061	.50564	1.0424	-.02117	.52194	.47494	.46078

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value		5.0000	10.700									
Range		-10.490%	-10.490%									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3084.5	54903.	6756.1
Stddev	.4	31.	62.8
%RSD	.01384	.05723	.92999

#1	3084.2	54925.	6800.5
#2	3084.9	54881.	6711.6

Sample Name: CCB Acquired: 5/31/2015 3:07:15 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0089	.00018	-0.00354	.04124	-0.00013	.00007	.00048	-0.00021	.00000	.00017	-0.00006	-0.00089	-0.00165
Stddev	.00021	.00009	.00300	.00006	.00009	.00007	.00188	.00050	.0000	.00001	.00003	.00010	.00096
%RSD	23.471	47.539	84.791	.15187	68.802	103.33	393.58	233.77	626.22	5.7297	45.049	10.829	57.848

#1	-0.00104	.00024	-0.00142	.04128	-0.00019	.00002	-0.00085	.00014	-0.00001	.00018	-0.00004	-0.00096	-0.00098
#2	-0.00074	.00012	-0.00566	.04119	-0.00007	.00013	.00181	-0.00056	.00001	.00017	-0.00008	-0.00083	-0.00233

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04510	-0.00131	-0.00070	-0.00003	.00019	.09197	-0.00004	.00315	-0.00129	.02005	-0.00068	.00287	-0.02701
Stddev	.02529	.00089	.00193	.00002	.00022	.00396	.00062	.00392	.00126	.00375	.00364	.00084	.00266
%RSD	56.071	68.243	274.22	46.905	115.14	4.3080	1398.1	124.30	98.027	18.689	534.34	29.394	9.8474

#1	.02722	-0.00194	.00066	-0.00004	.00004	.09477	-0.00048	.00038	-0.00040	.01740	.00189	.00347	-0.02889
#2	.06299	-0.00068	-0.00207	-0.00002	.00035	.08917	.00039	.00592	-0.00218	.02270	-0.00325	.00228	-0.02513

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.05781	-0.00003	.00002	.00223	.00033	.00009	-0.01060	.00021	.00027	.00069
Stddev	.00569	.00164	.00003	.00065	.00081	.00161	.00171	.00014	.00034	.00021
%RSD	9.8474	5965.8	115.76	29.149	246.24	1751.7	16.139	65.802	126.26	29.928

#1	-0.06183	-0.00119	.00000	.00177	.00090	.00123	-0.00939	.00031	.00051	.00055
#2	-0.05378	.00113	.00005	.00269	-0.00024	-0.00105	-0.01181	.00011	.00003	.00084

Check ?	Chk Pass									
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3111.5	55767.	6722.9
Stddev	.3	147.	29.0
%RSD	.01053	.26441	.43203

#1	3111.7	55872.	6702.4
#2	3111.3	55663.	6743.4

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00980	.11107	.01762	F .15130	.01022	.00103	.11010	.18724	.00537	.01076	.01086	.01438
Stddev	.00033	.00034	.00205	.00054	.00009	.00010	.00138	.00465	.00002	.00010	.00007	.00018
%RSD	3.3971	.30319	11.638	.35388	.91849	10.126	1.2542	2.4853	.27993	.89955	.60037	1.2642

#1	.00957	.11083	.01617	.15168	.01015	.00095	.10913	.18395	.00535	.01070	.01081	.01451
#2	.01004	.11131	.01907	.15093	.01028	.00110	.11108	.19053	.00538	.01083	.01091	.01426

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass							
Value				.10000								
Range				30.000%								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08765	3.1163	.01058	.20173	.01061	.02093	1.1446	.04210	3.1798	.00923	.01678	.00843
Stddev	.00033	.0142	.00115	.00246	.00001	.00024	.0053	.00003	.0243	.00105	.00324	.00154
%RSD	.37807	.45698	10.884	1.2189	.08911	1.1637	.46572	.08182	.76363	11.360	19.338	18.254

#1	.08741	3.1062	.01140	.20347	.01062	.02110	1.1409	.04208	3.1627	.00997	.01907	.00734
#2	.08788	3.1264	.00977	.19999	.01060	.02076	1.1484	.04213	3.1970	.00849	.01449	.00952

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01605	.40466	.86597	.10556	.01012	.01805	.01054	.01534	F .03442	.01040	.02126	.01564
Stddev	.00263	.00225	.00482	.00078	.00017	.00005	.00026	.00206	.01421	.00086	.00044	.00058
%RSD	16.396	.55680	.55680	.73953	1.6451	.28159	2.4476	13.409	41.279	8.2199	2.0639	3.7148

#1	.01419	.40307	.86257	.10500	.01000	.01809	.01072	.01679	.02437	.00980	.02157	.01605
#2	.01791	.40625	.86938	.10611	.01024	.01802	.01036	.01388	.04447	.01101	.02095	.01523

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass							
Value									.06000			
Range									-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3104.4	55787.	6738.2
Stddev	4.5	334.	2.0
%RSD	.14441	.59882	.03012

#1	3101.2	56023.	6739.6
#2	3107.5	55551.	6736.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0067	.00579	.00308	.03322	.00001	.00010	-0.00101	.01092	-0.00021
Stddev	.00018	.00017	.00387	.00177	.00024	.00003	.00141	.00058	.00019
%RSD	27.732	2.9499	125.61	5.3152	3153.5	24.566	139.05	5.3068	88.636

#1	-0.00054	.00567	.00582	.03447	.00018	.00012	-0.00201	.01133	-0.00035
#2	-0.00080	.00591	.00034	.03197	-0.00016	.00008	-0.00002	.01051	-0.00008

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00013	-0.00009	-0.00127	.01814	.02878	-0.00069	.00313	.00023	.00034
Stddev	.00009	.00002	.00029	.00125	.02389	.00122	.00130	.00003	.00007
%RSD	65.436	24.682	22.783	6.8705	83.026	176.32	41.425	11.252	19.533

#1	.00007	-0.00010	-0.00106	.01902	.04568	.00017	.00221	.00025	.00039
#2	.00020	-0.00007	-0.00147	.01726	.01188	-0.00156	.00404	.00021	.00029

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08881	-0.00033	.00283	-0.00134	.02157	-0.00408	-0.00163	-0.01721	-0.03684
Stddev	.00249	.00012	.00116	.00005	.00138	.00201	.00133	.02183	.04671
%RSD	2.8003	36.904	40.827	3.8724	6.4132	49.316	81.890	126.78	126.78

#1	.09056	-0.00041	.00365	-0.00138	.02255	-0.00265	-0.00257	-0.03265	-0.06987
#2	.08705	-0.00024	.00201	-0.00130	.02059	-0.00550	-0.00068	-0.00178	-0.00381

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00016	.00004	.00132	.00042	-0.00116	-0.00622	.00051	.00044	.00111
Stddev	.00056	.00006	.00055	.00014	.00154	.02624	.00055	.00044	.00076
%RSD	349.59	148.35	41.329	33.442	132.22	422.19	107.22	99.887	67.855

#1	.00024	.00009	.00171	.00032	-0.00225	-0.02477	.00091	.00074	.00165
#2	-0.00056	.00000	.00093	.00052	-0.00008	.01234	.00012	.00013	.00058

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3160.7	57069.	6811.9
Stddev	6.3	226.	72.2
%RSD	.19979	.39662	1.0605

#1	3156.2	57229.	6760.8
#2	3165.2	56909.	6863.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04500	2.0013	1.0456	F 1.1433	2.0058	.04642	2.1178	F 44.663	.10612
Stddev	.00018	.0024	.0037	.0022	.0003	.00005	.0003	.138	.00038
%RSD	.40426	.12167	.35697	.19059	.01682	.11295	.01594	.30848	.36118

#1	.04488	1.9996	1.0483	1.1417	2.0060	.04639	2.1176	44.566	.10585
#2	.04513	2.0030	1.0430	1.1448	2.0055	.04646	2.1180	44.760	.10639

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Fail	Chk Pass
High Limit				1.1050				55.500	
Low Limit				.86000				44.750	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50331	F .20704	.25427	F .87205	50.684	1.0271	47.464	.50156	1.0558
Stddev	.00055	.00054	.00195	.00279	.007	.0016	.138	.00138	.0009
%RSD	.10879	.25982	.76699	.32008	.01286	.15633	.29151	.27522	.08711

#1	.50370	.20666	.25290	.87008	50.680	1.0260	47.366	.50254	1.0552
#2	.50292	.20742	.25565	.87403	50.689	1.0283	47.562	.50059	1.0565

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass				
High Limit		.05750		1.1500					
Low Limit		.04275		.89000					

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	55.178	.49645	F 11.176	.50443	2.1723	F .55872	2.1864	9.0037	19.268
Stddev	.192	.00021	.016	.00196	.0162	.00970	.0116	.0713	.153
%RSD	.34881	.04265	.14049	.38908	.74747	1.7355	.53010	.79187	.79187

#1	55.042	.49630	11.165	.50304	2.1608	.55186	2.1782	8.9532	19.160
#2	55.314	.49660	11.187	.50582	2.1838	.56558	2.1945	9.0541	19.376

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Fail	Chk Pass	Chk Pass	None
High Limit			11.100			.55499			
Low Limit			9.1000			.44000			

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0529	.99332	1.0168	1.0134	2.0713	2.1536	.51311	.46337	.45103
Stddev	.0059	.00010	.0008	.0001	.0144	.0058	.00065	.00386	.00201
%RSD	.28937	.00966	.08245	.00458	.69607	.26954	.12722	.83198	.44663

#1	2.0487	.99326	1.0174	1.0133	2.0611	2.1495	.51358	.46609	.44961
#2	2.0571	.99339	1.0162	1.0134	2.0815	2.1577	.51265	.46064	.45246

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3057.1	54981.	6887.7
Stddev	6.9	150.	25.3
%RSD	.22443	.27289	.36730

#1	3062.0	54875.	6905.6
#2	3052.3	55087.	6869.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04469	1.9835	1.0369	F 1.1278	1.9923	.04614	2.0975	F 44.311	.10511
Stddev	.00031	.0024	.0073	.0006	.0006	.00011	.0078	.073	.00006
%RSD	.68758	.11943	.70478	.05723	.02760	.23823	.37202	.16397	.05371

#1	.04490	1.9851	1.0421	1.1283	1.9927	.04606	2.1030	44.362	.10507
#2	.04447	1.9818	1.0318	1.1274	1.9919	.04622	2.0920	44.260	.10515

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Fail	Chk Pass
High Limit				1.1050				55.500	
Low Limit				.86000				44.750	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50217	F .20567	.25324	F .86993	50.407	1.0223	46.987	.49836	1.0582
Stddev	.00011	.00078	.00060	.00264	.086	.0036	.048	.00255	.0013
%RSD	.02262	.37943	.23687	.30389	.17105	.35476	.10165	.51197	.12591

#1	.50209	.20512	.25281	.86807	50.468	1.0248	46.953	.49655	1.0592
#2	.50226	.20623	.25366	.87180	50.346	1.0197	47.020	.50016	1.0573

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass				
High Limit		.05750		1.1500					
Low Limit		.04275		.89000					

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	54.610	.49370	11.010	.50004	2.1501	W .54791	2.1384	F 8.8971	19.040
Stddev	.295	.00059	.029	.00213	.0062	.00210	.0069	.0686	.147
%RSD	.54053	.11860	.26189	.42567	.28924	.38377	.32179	.77090	.77090

#1	54.401	.49329	11.030	.49854	2.1545	.54643	2.1336	8.8486	18.936
#2	54.818	.49412	10.989	.50155	2.1457	.54940	2.1433	8.9456	19.144

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Warn	Chk Pass	Chk Fail	None
High Limit						.54000		11.000	
Low Limit						.44000		9.0000	

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0334	.98755	1.0137	1.0129	2.0357	2.1249	.51423	.45807	.44347
Stddev	.0063	.00117	.0006	.0022	.0052	.0128	.00263	.00286	.00339
%RSD	.31227	.11859	.05819	.22249	.25402	.60270	.51201	.62469	.76473

#1	2.0289	.98838	1.0133	1.0113	2.0320	2.1339	.51237	.45605	.44107
#2	2.0379	.98672	1.0141	1.0145	2.0393	2.1158	.51610	.46009	.44586

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3030.5	54493.	6854.0
Stddev	2.6	124.	5.7
%RSD	.08502	.22770	.08362

#1	3028.7	54580.	6849.9
#2	3032.4	54405.	6858.0

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00756	11.021	.01083	4.1054	.07775	.00045	.00284	85.720	1.4504
Stddev	.00029	.094	.00192	.0063	.00030	.00002	.00048	.027	.0006
%RSD	3.8607	.85033	17.777	.15257	.39159	4.4267	16.752	.03176	.04138

#1	.00735	11.087	.00947	4.1099	.07797	.00044	.00318	85.739	1.4508
#2	.00776	10.955	.01219	4.1010	.07754	.00047	.00250	85.701	1.4500

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04186	.04930	W 15.618	6.8711	W 384.01	.03301	31.990	.56713	2.3513
Stddev	.00048	.00013	.043	.0452	1.28	.00062	.104	.00050	.0047
%RSD	1.1544	.26847	.27366	.65791	.33383	1.8834	.32414	.08743	.19823

#1	.04152	.04921	15.648	6.8391	384.91	.03257	32.063	.56678	2.3546
#2	.04220	.04939	15.588	6.9030	383.10	.03345	31.917	.56748	2.3480

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			10.000		100.00				
Low Limit			-0.01000		-0.50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1462.0	.02654	F 101.56	.00991	F 1738.6	.04250	.04842	10.439	22.340
Stddev	.8	.00008	.23	.00182	4.0	.00208	.00265	.167	.357
%RSD	.05159	.30884	.22871	18.333	.23154	4.8897	5.4643	1.5988	1.5988

#1	1461.5	.02648	101.72	.00863	1741.4	.04397	.05029	10.321	22.087
#2	1462.5	.02659	101.39	.01120	1735.7	.04103	.04655	10.557	22.592

Check ?	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00		50.000		200.00				
Low Limit	11.000		-2.0000		-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.17294	.73021	.00426	.09746	-.00785	-.02932	.04637	.13603	.01263
Stddev	.00116	.00082	.00114	.00135	.00005	.00977	.00013	.00191	.00070
%RSD	.67264	.11186	26.712	1.3828	.68443	33.326	.27368	1.4038	5.5694

#1	.17212	.72964	.00507	.09841	-.00781	-.03622	.04628	.13738	.01213
#2	.17376	.73079	.00346	.09650	-.00789	-.02241	.04646	.13468	.01312

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2850.8	50367.	6862.6
Stddev	2.4	57.	12.5
%RSD	.08312	.11272	.18282

#1	2852.5	50407.	6853.8
#2	2849.1	50327.	6871.5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00030	7.2007	.05015	1.7444	1.0580	.00016	.00264	149.66	.00671
Stddev	.00036	.0216	.00647	.0065	.0009	.00008	.00092	.23	.00025
%RSD	120.31	.29973	12.895	.37193	.08807	49.546	34.963	.15277	3.7981

#1	.00056	7.1855	.05472	1.7398	1.0587	.00021	.00329	149.50	.00653
#2	.00005	7.2160	.04558	1.7490	1.0574	.00010	.00199	149.83	.00689

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02510	W 4.2779	.70731	27.521	W 234.25	.12890	43.918	1.4477	.34418
Stddev	.00049	.00297	.00322	.086	.64	.00270	.012	.0001	.00045
%RSD	1.9416	.69493	.45503	.31190	.27211	2.0939	.02623	.01053	.12938

#1	.02475	.42568	.70959	27.460	233.80	.12699	43.910	1.4476	.34386
#2	.02544	.42989	.70504	27.582	234.70	.13081	43.926	1.4478	.34449

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.10000			100.00				
Low Limit		-.01000			-.50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	367.98	.14439	.92015	.12429	F 552.60	.02006	.00993	11.830	25.317
Stddev	.33	.00079	.00317	.00070	1.46	.00008	.00044	.043	.093
%RSD	.09014	.54605	.34432	.56080	.26425	.41081	4.4016	.36635	.36635

#1	367.74	.14384	.92239	.12380	551.57	.02012	.01024	11.800	25.252
#2	368.21	.14495	.91791	.12478	553.63	.02000	.00962	11.861	25.383

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-.20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.13120	1.1384	.00875	.07435	-.00886	-.04111	.01721	1.7715	.00689
Stddev	.00127	.0007	.00089	.00013	.00242	.00189	.00026	.0127	.00147
%RSD	.96619	.06088	10.203	.16887	27.250	4.5889	1.5349	.71681	21.391

#1	.13030	1.1380	.00812	.07426	-.01057	-.03978	.01702	1.7625	.00585
#2	.13209	1.1389	.00938	.07443	-.00716	-.04245	.01739	1.7805	.00794

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2916.5	51924.	6852.3
Stddev	7.3	211.	81.1
%RSD	.25123	.40598	1.1840

#1	2911.3	52073.	6909.6
#2	2921.6	51775.	6794.9

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 29149	185.66	7.2802	2.2966	6.9934	.05985	F 1.8946	F 1229.8	W 6.4392
Stddev	.00059	.12	.0160	.0032	.0230	.00002	.0044	5.4	.0121
%RSD	.20196	.06480	.22008	.13891	.32895	.02710	.23369	.44253	.18755

#1	.29107	185.58	7.2915	2.2989	7.0097	.05983	1.8978	1226.0	6.4477
#2	.29191	185.75	7.2689	2.2943	6.9771	.05986	1.8915	1233.7	6.4306

Check ?	Chk Warn	Chk Pass	Chk Fail	Chk Fail	Chk Warn				
High Limit	.10000						.10000	1000.0	2.0000
Low Limit	-.01000						-.10000	-.10000	-.00500

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 11.244	F 21.995	W 34.199	W 815.64	99.853	.46284	239.45	F 44.045	F 55.369
Stddev	.026	.097	.209	.06	.016	.00232	.14	.095	.157
%RSD	.23273	.44136	.61088	.00720	.01565	.50113	.05972	.21455	.28389

#1	11.262	22.063	34.347	815.60	99.864	.46120	239.35	44.112	55.480
#2	11.225	21.926	34.051	815.68	99.841	.46448	239.55	43.978	55.258

Check ?	Chk Warn	Chk Fail	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail
High Limit	1.0000	1.0000	10.000	500.00				20.000	20.000
Low Limit	-.01000	-.02000	-.01000	40.000				-.02000	-.02000

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1272.9	6.6643	W 23.957	W 91.610	F 522.92	W 2.4859	.57598	W 154.88	W 331.45
Stddev	.5	.0149	.067	.226	.61	.0173	.00089	.68	1.45
%RSD	.03813	.22355	.27924	.24681	.11634	.69430	.15443	.43725	.43725

#1	1272.6	6.6749	24.004	91.770	523.35	2.4981	.57535	155.36	332.47
#2	1273.3	6.6538	23.909	91.450	522.49	2.4737	.57661	154.40	330.42

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Warn	Chk Fail	Chk Warn	Chk Pass	Chk Warn	Chk Warn
High Limit	500.00		2.0000	10.000	200.00	2.0000		50.000	107.00
Low Limit	11.000		-1.0000	-.00300	-20000	-.01000		-.10000	-.21400

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 12.794	W 7.2404	.10683	4.1564	.05470	F -.66152	1.2299	F 186.35	.14503
Stddev	.037	.0149	.00294	.0073	.00024	.01794	.0012	.60	.00006
%RSD	.28982	.20512	2.7476	.17515	.44371	2.7123	.09603	.32054	.03798

#1	12.820	7.2299	.10475	4.1513	.05453	-.64883	1.2290	186.77	.14507
#2	12.767	7.2509	.10890	4.1616	.05488	-.67421	1.2307	185.93	.14500

Check ?	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass
High Limit	2.0000	5.0000				50.000		50.000	
Low Limit	-.05000	-.01000				-.10000		-.02000	

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3132.4	58697.	8154.4
Stddev	3.6	70.	13.3
%RSD	.11493	.11890	.16283

#1	3134.9	58746.	8145.1
#2	3129.8	58647.	8163.8

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00068	8.3454	.02678	4.5801	.48738	.00017	.00111	231.04	.00160
Stddev	.00022	.0740	.00397	.0126	.00078	.00002	.00155	2.07	.00016
%RSD	31.905	.88668	14.815	.27519	.15923	9.9452	138.94	.89557	10.268

#1	.00084	8.3977	.02958	4.5890	.48793	.00018	.00221	232.51	.00148
#2	.00053	8.2931	.02397	4.5712	.48683	.00015	.00002	229.58	.00171

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00720	.07294	.44723	20.452	W 141.04	.11797	54.484	2.7855	.05071
Stddev	.00065	.00012	.00107	.078	.56	.00080	.013	.0016	.00093
%RSD	9.0301	.16333	.23950	.37947	.39798	.68189	.02437	.05874	1.8320

#1	.00765	.07303	.44799	20.507	141.43	.11854	54.475	2.7867	.05136
#2	.00674	.07286	.44647	20.397	140.64	.11740	54.493	2.7843	.05005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 648.50	.04615	W 33.275	.06317	F 207.87	.00905	.03529	18.393	39.361
Stddev	2.07	.00067	.088	.00142	.48	.00235	.00346	.024	.051
%RSD	.31907	1.4615	.26534	2.2435	.23200	26.002	9.8069	.13047	.13047

#1	649.96	.04663	33.338	.06417	208.21	.00739	.03284	18.410	39.397
#2	647.04	.04567	33.213	.06216	207.53	.01072	.03774	18.376	39.324

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00		2.0000		200.00				
Low Limit	11.000		-1.0000		-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04143	2.4563	.00668	1.8765	-.00879	-.00061	.01645	.91499	.00644
Stddev	.00173	.0080	.00233	.0009	.00069	.03709	.00020	.00618	.00020
%RSD	4.1753	.32748	34.953	.04755	7.8102	6080.9	1.2037	.67529	3.0850

#1	.04020	2.4620	.00833	1.8759	-.00830	-.02684	.01659	.91062	.00658
#2	.04265	2.4506	.00503	1.8771	-.00927	.02562	.01631	.91936	.00630

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2893.7	51471.	6786.8
Stddev	3.4	60.	31.6
%RSD	.11890	.11713	.46548

#1	2891.2	51513.	6764.5
#2	2896.1	51428.	6809.1

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00066	24.383	.07456	3.9283	.35719	.00065	.02072	312.29	.00486
Stddev	.00049	.115	.00311	.1015	.00244	.00003	.00054	.05	.00022
%RSD	74.077	.47287	4.1717	2.5825	.68243	5.2293	2.6128	.01484	4.6304

#1	.00032	24.465	.07675	4.0000	.35891	.00063	.02110	312.26	.00502
#2	.00101	24.302	.07236	3.8566	.35546	.00068	.02033	312.32	.00470

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02706	W .29922	1.7383	46.749	36.686	.20049	69.543	2.4051	.15956
Stddev	.00009	.00311	.0124	.089	.163	.00153	.147	.0028	.00437
%RSD	.34353	1.0405	.71215	.19094	.44483	.76092	.21121	.11815	2.7412

#1	.02699	.30142	1.7471	46.812	36.802	.19941	69.647	2.4031	.16266
#2	.02712	.29702	1.7296	46.686	36.571	.20156	69.439	2.4071	.15647

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 820.67	.15478	W 2.0217	.14605	F 908.35	.01203	.02904	32.544	69.643
Stddev	4.09	.00311	.0494	.00430	24.79	.00515	.00389	.132	.282
%RSD	.49832	2.0061	2.4449	2.9429	2.7292	42.769	13.405	.40478	.40478

#1	823.56	.15698	2.0567	.14909	925.88	.01567	.03180	32.637	69.842
#2	817.78	.15259	1.9868	.14301	890.82	.00839	.02629	32.450	69.444

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00		2.0000		200.00				
Low Limit	11.000		-1.0000		-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.14346	2.8626	.01243	.27248	W -.01113	-.04844	.04779	6.2558	.01801
Stddev	.00160	.0188	.00265	.00014	.00132	.04648	.00024	.0338	.00098
%RSD	1.1128	.65830	21.334	.05284	11.866	95.957	.50924	.54070	5.4362

#1	.14459	2.8759	.01056	.27237	-0.01020	-0.01557	.04796	6.2319	.01732
#2	.14233	2.8493	.01431	.27258	-0.01206	-0.08130	.04762	6.2797	.01871

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000				
Low Limit					-0.01000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2803.1	52341.	6790.8
Stddev	33.5	132.	14.3
%RSD	1.1936	.25143	.21025

#1	2779.5	52434.	6780.7
#2	2826.8	52248.	6800.8

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00249	11.936	.04938	6.6825	1.5240	.00088	.01133	W 943.09	.00360
Stddev	.00064	.118	.00229	.0146	.0112	.00002	.00045	1.51	.00023
%RSD	25.745	.98663	4.6320	.21842	.73366	2.7341	3.9358	.15967	6.3085

#1	.00204	12.020	.04776	6.6722	1.5319	.00089	.01165	944.16	.00376
#2	.00295	11.853	.05100	6.6928	1.5161	.00086	.01102	942.03	.00344

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								500.00	
Low Limit								-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01373	W .30913	.87822	50.983	43.981	.48219	115.58	2.3213	.14140
Stddev	.00078	.00128	.00598	.411	.348	.00166	.66	.0080	.00270
%RSD	5.6757	.41309	.68147	.80692	.79217	.34401	.57057	.34553	1.9082

#1	.01318	.31003	.88245	51.273	44.228	.48336	116.04	2.3269	.13949
#2	.01428	.30823	.87399	50.692	43.735	.48102	115.11	2.3156	.14331

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1574.7	.16099	1.8438	.12507	F 1815.0	.02723	.16712	27.935	59.780
Stddev	10.5	.00092	.0079	.00537	7.0	.00163	.00263	.236	.504
%RSD	.66908	.56899	.42765	4.2952	.38505	6.0027	1.5729	.84371	.84371

#1	1582.2	.16034	1.8382	.12127	1810.1	.02608	.16526	28.101	60.137
#2	1567.3	.16164	1.8494	.12887	1820.0	.02839	.16898	27.768	59.423

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00				200.00				
Low Limit	11.000				-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.26322	W 5.6610	.00861	.27667	W -.01185	-.02008	.04447	W 14.224	.16050
Stddev	.00303	.0492	.00092	.00042	.00407	.00167	.00032	.090	.00258
%RSD	1.1522	.86961	10.728	.15184	34.342	8.3068	.72617	.63416	1.6050

#1	.26108	5.6958	.00795	.27638	-.01472	-.02126	.04470	14.288	.16232
#2	.26537	5.6262	.00926	.27697	-.00897	-.01890	.04424	14.161	.15868

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit		5.0000			5.0000			10.000	
Low Limit		-.01000			-.01000			-.00500	

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2654.8	47661.	6525.5
Stddev	24.6	37.	24.3
%RSD	.92519	.07832	.37171

#1	2672.2	47634.	6508.4
#2	2637.4	47687.	6542.7

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00376	13.488	.17609	W 10.782	1.1107	.00074	.00863	429.29	.00542
Stddev	.00019	.043	.00164	.016	.0010	.00007	.00101	2.61	.00053
%RSD	5.1206	.31944	.93232	.14946	.08857	9.2125	11.748	.60710	9.7505

#1	.00363	13.519	.17725	10.794	1.1100	.00079	.00791	431.14	.00505
#2	.00390	13.458	.17492	10.771	1.1114	.00069	.00934	427.45	.00580

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.01000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02430	W .32011	.85988	37.974	W 182.37	.28567	144.12	4.7773	.31774
Stddev	.00018	.00123	.00277	.113	.54	.00145	.16	.0028	.00157
%RSD	.74105	.38302	.32187	.29728	.29620	.50741	.10766	.05803	.49268

#1	.02443	.31925	.85792	38.054	182.76	.28465	144.23	4.7792	.31663
#2	.02418	.32098	.86183	37.894	181.99	.28670	144.01	4.7753	.31884

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.10000			100.00				
Low Limit		-.01000			-.50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2751.7	.51921	W 8.4353	.09359	F 734.73	.02843	.09386	31.521	67.455
Stddev	.2	.00212	.0541	.00029	3.02	.00195	.00390	.053	.113
%RSD	.00609	.40768	.64173	.30676	.41068	6.8589	4.1565	.16821	.16821

#1	2751.8	.51771	8.3970	.09338	736.87	.02981	.09662	31.559	67.535
#2	2751.6	.52070	8.4735	.09379	732.60	.02705	.09110	31.484	67.375

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00		2.0000		200.00				
Low Limit	11.000		-1.0000		-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19195	4.7832	.01118	.33368	-.00954	-.03701	.04702	4.2921	.03432
Stddev	.00218	.1291	.00136	.00274	.00128	.01751	.00092	.0503	.00035
%RSD	1.1378	2.6987	12.134	.82254	13.413	47.318	1.9518	1.1725	1.0223

#1	.19040	4.8745	.01214	.33562	-.00864	-.04940	.04767	4.3277	.03457
#2	.19349	4.6919	.01022	.33174	-.01045	-.02463	.04637	4.2565	.03408

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2628.1	45771.	6208.9
Stddev	2.6	87.	46.4
%RSD	.09766	.19113	.74798

#1	2630.0	45709.	6176.1
#2	2626.3	45833.	6241.7

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k -.00012	45.362	k .00128	k .03509	k .00052	k .00010	k .98811	k .05556	k -.00113	k .00054	k .00055	k .00279
Stddev	.01004	.155	.00365	.00036	.00006	.00003	.02861	.02520	.00136	.00128	.00014	.00683
%RSD	8187.6	.34097	286.52	1.0145	11.096	34.257	2.8950	45.361	120.30	235.74	25.740	244.28

#1	-.00723	45.253	-.00131	.03534	.00056	.00008	1.0083	.03774	-.00017	-.00036	.00065	-.00203
#2	k .00698	45.471	k .00386	k .03484	k .00048	k .00013	k .96789	k .07338	k -.00209	k .00144	k .00045	k .00762

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 39.929	.32024	.00221	k .04527	k -.00081	k -.00074	249.20	k .00204	k .01053	k .00488	k 5.0438	k -.02463
Stddev	.106	.05059	.00128	.01477	.00068	.00091	.39	.00055	.00228	.00531	.0246	.01826
%RSD	.26645	15.797	57.874	32.627	83.993	123.13	.15558	27.021	21.617	108.92	.48875	74.134

#1	39.854	.28447	.00130	.05571	-.00129	-.00010	248.93	.00165	.01213	.00112	5.0264	-.01172
#2	40.004	.35602	.00311	k .03482	k -.00033	k -.00138	249.48	k .00243	k .00892	k .00864	k 5.0612	k -.03754

Check ?	Chk Fail	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None
Value	50.000											
Range	-10.490%											

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k -.00078	-.03280	-.07018	k -.00063	.00073	k 4.9683	k .00363	k .00145	k 10.317	k .00078	k .00076	k -.00682
Stddev	.00610	.00656	.01405	.00101	.00048	.1837	.02146	.00038	.015	.00439	.00100	.18146
%RSD	778.85	20.017	20.017	161.38	66.666	3.6968	590.88	25.872	.14451	564.43	130.67	2659.9

#1	.00353	-.03744	-.08012	-.00134	.00038	4.8384	-.01154	.00172	10.306	.00388	.00147	-.13514
#2	k -.00510	-.02815	-.06025	k .00009	.00107	k 5.0982	k .01881	k .00119	k 10.328	k -.00233	k .00006	k .12149

Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3084.5	54044.	6567.9
Stddev	6.5	84.	62.4
%RSD	.20951	.15624	.95083

#1	3080.0	54104.	6612.0
#2	3089.1	53984.	6523.7

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46986	.51310	.99954	W .55127	.48095	F .44241	.00050	4.7471	.50677	.49866	.51592
Stddev	.00401	.00082	.00190	.00228	.00213	.00099	.00064	.1134	.00033	.00096	.00079
%RSD	.85449	.16026	.19032	.41401	.44186	.22476	127.86	2.3897	.06424	.19176	.15319

#1	.46702	.51252	1.0009	.54965	.47944	.44171	.00005	4.8273	.50700	.49798	.51536
#2	.47270	.51368	.99819	.55288	.48245	.44311	.00095	4.6669	.50654	.49933	.51648

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				.50000		.50000					
Range				10.000%		-10.490%					

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48329	F 2.2043	49.036	.99361	18.204	.48309	.49060	F 6.1686	.49135	1.0511	.97073
Stddev	.00227	.0318	.151	.00565	.107	.00478	.00192	.2940	.00003	.0016	.00297
%RSD	.46980	1.4430	.30886	.56821	.58687	.99037	.39193	4.7661	.00639	.15388	.30553

#1	.48169	2.2268	48.929	.98962	18.128	.47970	.48924	6.3765	.49137	1.0523	.96863
#2	.48490	2.1818	49.143	.99760	18.279	.48647	.49196	5.9607	.49133	1.0500	.97283

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass				
Value		2.5000						5.0000			
Range		-10.490%						10.490%			

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10392	1.0283	1.0075	F 4.3087	F 9.2207	.98017	.47706	.00055	.48391	1.0017	-.00733
Stddev	.00018	.0000	.0021	.0321	.0687	.00096	.00148	.00205	.00331	.0069	.02788
%RSD	.17064	.00271	.20315	.74553	.74553	.09817	.30949	375.65	.68301	.68471	380.55

#1	.10379	1.0282	1.0061	4.2860	9.1721	.97949	.47602	-.00090	.48157	.99682	.01239
#2	.10404	1.0283	1.0090	4.3315	9.2693	.98085	.47810	.00199	.48625	1.0065	-.02704

Check ?	None	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None
Value				5.0000	10.700						
Range				-10.490%	-10.490%						

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.49714	.45869	.45182
Stddev	.00489	.00349	.00205
%RSD	.98422	.76146	.45426

#1	.49368	.45622	.45037
#2	.50060	.46116	.45327

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3115.1	55657.	6632.9
Stddev	1.9	216.	9.4
%RSD	.06009	.38852	.14196

#1	3116.4	55810.	6639.5
#2	3113.8	55504.	6626.2

Sample Name: CCB Acquired: 5/31/2015 3:47:51 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0060	-0.0032	.00112	.02462	.00017	.00012	.00188	.00351	-0.0022	.00003	.00005	-0.0139	.00061
Stddev	.00019	.00019	.00117	.00065	.00034	.00003	.00381	.00615	.00012	.00018	.00003	.00030	.00578
%RSD	31.793	60.882	104.22	2.6425	199.33	22.267	202.19	175.54	53.736	541.66	67.004	21.373	945.02
#1	-0.0046	-0.0018	.00030	.02508	-0.0007	.00014	-0.0081	-0.0085	-0.0014	.00016	.00008	-0.0118	-0.0347
#2	-0.0073	-0.0045	.00195	.02416	.00041	.00010	.00458	.00786	-0.0031	-0.0009	.00003	-0.0160	.00470

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.13357	.00149	-0.0027	-0.0003	.00023	.34993	-0.0017	.00034	-0.0058	.08818	-0.0181	-0.0126	-0.2504
Stddev	.01103	.00052	.00011	.00001	.00011	.04165	.00022	.00147	.00051	.00134	.00174	.00260	.00208
%RSD	8.2568	34.996	40.536	22.823	50.622	11.903	129.31	426.96	86.960	1.5185	95.878	205.81	8.3135
#1	.12577	.00186	-0.0035	-0.0004	.00031	.32048	-0.0033	.00138	-0.0022	.08913	-0.0304	.00058	-0.2651
#2	.14137	.00112	-0.0019	-0.0003	.00015	.37938	-0.0001	-0.0069	-0.0094	.08723	-0.0058	-0.0310	-0.2356

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.05358	.00022	.00010	.00237	.00048	-0.0065	-0.00536	.00011	.00045	.00286
Stddev	.00445	.00040	.00018	.00027	.00004	.00152	.00356	.00071	.00000	.00067
%RSD	8.3135	184.17	176.66	11.499	7.3831	233.82	66.450	624.87	.36257	23.561
#1	-0.05673	.00050	-0.0003	.00256	.00050	.00042	-0.00284	.00062	.00045	.00334
#2	-0.05043	-0.0007	.00023	.00218	.00045	-0.0173	-0.00787	-0.0039	.00045	.00238

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3155.9	56477.	6636.4
Stddev	1.0	47.	9.9
%RSD	.03288	.08336	.14879
#1	3155.1	56444.	6629.4
#2	3156.6	56511.	6643.4

Sample Name: CCVL3301032 Acquired: 5/31/2015 3:50:13 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00965	.10828	.01535	.12965	.00987	.00092	.10552	.18096	.00531	.01055	.01058	.01440	.08190	3.0685
Stddev	.00013	.00063	.00228	.00108	.00031	.00009	.00231	.00279	.00003	.00010	.00008	.00044	.00167	.0012
%RSD	1.3491	.58414	14.846	.83265	3.1734	9.2883	2.1884	1.5403	.61528	.95460	.74670	3.0389	2.0397	.03868

#1	.00974	.10873	.01696	.12889	.00965	.00098	.10716	.17899	.00528	.01062	.01063	.01409	.08071	3.0677
#2	.00955	.10784	.01374	.13041	.01009	.00086	.10389	.18294	.00533	.01048	.01052	.01471	.08308	3.0693

Check ?	Chk Pass													
Value														
Range														

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01023	.19762	.01030	.01993	1.2940	.04080	3.0823	.00815	.08783	.00813	.01656	.40331	.86307	.10088
Stddev	.00133	.00381	.00010	.00015	.0201	.00017	.0171	.00101	.00554	.00098	.00148	.01303	.02789	.00063
%RSD	13.050	1.9280	.97882	.75726	1.5511	.41998	.55438	12.394	6.3099	12.034	8.9436	3.2315	3.2315	.62512

#1	.01117	.19493	.01023	.02004	1.2798	.04068	3.0703	.00743	.09175	.00744	.01552	.41252	.88280	.10043
#2	.00928	.20031	.01037	.01983	1.3082	.04092	3.0944	.00886	.08391	.00883	.01761	.39409	.84335	.10132

Check ?	Chk Pass													
Value									None					
Range														

Elem	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00980	.01747	.01029	.01653	.05674	.01074	.01997	.01412
Stddev	.00004	.00250	.00004	.00020	.03885	.00048	.00008	.00143
%RSD	.39071	14.311	.37809	1.2239	68.471	4.4912	.40602	10.107

#1	.00977	.01570	.01032	.01638	.08422	.01040	.02003	.01311
#2	.00982	.01924	.01026	.01667	.02927	.01108	.01991	.01513

Check ?	Chk Pass							
Value								
Range								

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3166.8	56564.	6738.3
Stddev	14.0	245.	4.2
%RSD	.44101	.43288	.06270

#1	3157.0	56737.	6735.3
#2	3176.7	56391.	6741.3

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00346	19.627	.12947	5.1191	.65156	.00070	.00266	229.78	.02145
Stddev	.00046	.072	.00166	.0092	.00228	.00009	.00112	1.14	.00007
%RSD	13.199	.36491	1.2799	.17970	.34935	12.673	42.151	.49825	.33709

#1	.00379	19.678	.13064	5.1256	.65317	.00064	.00187	230.59	.02140
#2	.00314	19.577	.12830	5.1126	.64995	.00076	.00345	228.97	.02150

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.30082	W .39480	1.4350	56.086	54.888	.17332	71.946	2.6403	1.1958
Stddev	.00058	.00057	.0039	.208	.295	.00017	.154	.0084	.0039
%RSD	.19171	.14564	.27364	.37122	.53813	.09559	.21438	.31669	.32216

#1	.30123	.39521	1.4322	55.938	55.097	.17344	72.055	2.6463	1.1985
#2	.30041	.39440	1.4378	56.233	54.679	.17321	71.837	2.6344	1.1931

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 969.15	.26366	W 2.9439	.10441	F 441.38	.01052	.50006	35.492	75.952
Stddev	1.66	.00062	.0127	.00177	.90	.00169	.00275	.142	.304
%RSD	.17093	.23573	.43210	1.6984	.20285	16.104	.54970	.40058	.40058

#1	970.32	.26410	2.9529	.10566	442.01	.00933	.49812	35.592	76.168
#2	967.98	.26322	2.9349	.10316	440.75	.01172	.50200	35.391	75.737

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00		2.0000		200.00				
Low Limit	11.000		-1.0000		-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.13915	2.0218	.01071	.50064	W -.01058	W -.06362	.07227	3.6296	.02271
Stddev	.00286	.0094	.00211	.00008	.00201	.00571	.00012	.0149	.00055
%RSD	2.0535	.46498	19.742	.01660	18.989	8.9791	.16580	.41085	2.4124

#1	.14117	2.0284	.01220	.50070	-.01200	-.06765	.07236	3.6191	.02309
#2	.13713	2.0152	.00921	.50058	-.00916	-.05958	.07219	3.6402	.02232

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000	45.000			
Low Limit					-.01000	-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2911.5	52150.	6741.8
Stddev	3.3	310.	28.6
%RSD	.11343	.59416	.42494

#1	2913.9	51930.	6721.6
#2	2909.2	52369.	6762.1

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00085	8.2752	.05643	5.5877	.39511	.00030	-.00123	245.32	.00190
Stddev	.00036	.0253	.00397	.0345	.00034	.00001	.00292	1.02	.00001
%RSD	41.854	.30513	7.0356	.61644	.08664	4.0106	236.83	.41620	.74035

#1	.00060	8.2930	.05362	5.6121	.39487	.00031	.00083	246.05	.00191
#2	.00110	8.2573	.05923	5.5634	.39536	.00029	-.00330	244.60	.00189

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06980	W .51073	.92773	46.987	35.558	.18779	71.629	1.7513	.28654
Stddev	.00008	.00256	.00547	.193	.002	.00105	.386	.0030	.00074
%RSD	.10745	.50079	.58985	.41142	.00531	.55770	.53881	.17158	.25987

#1	.06986	.50892	.92386	46.850	35.559	.18705	71.356	1.7492	.28602
#2	.06975	.51254	.93160	47.124	35.556	.18853	71.901	1.7535	.28707

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 527.63	.12183	1.7068	.05368	F 580.86	.01214	.01994	20.322	43.488
Stddev	.93	.00015	.0095	.00214	3.91	.00401	.00114	.121	.260
%RSD	.17542	.12315	.55423	3.9930	.67357	33.064	5.6983	.59749	.59749

#1	526.98	.12173	1.7135	.05519	583.63	.01497	.01914	20.236	43.305
#2	528.29	.12194	1.7001	.05216	578.09	.00930	.02074	20.407	43.672

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00				200.00				
Low Limit	11.000				-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19459	1.8001	.00956	.18142	-.00958	W -.07269	.03059	2.5942	.00931
Stddev	.00120	.0029	.00090	.00217	.00133	.00263	.00037	.0303	.00135
%RSD	.61787	.16062	9.3758	1.1970	13.875	3.6114	1.2030	1.1699	14.481

#1	.19374	1.7980	.00892	.18296	-.01052	-.07454	.03033	2.6157	.01026
#2	.19544	1.8021	.01019	.17989	-.00864	-.07083	.03086	2.5728	.00836

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2906.6	52109.	6672.2
Stddev	13.2	66.	7.5
%RSD	.45571	.12687	.11196

#1	2897.3	52156.	6666.9
#2	2916.0	52062.	6677.4

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01209	15.154	.58869	5.6026	1.3574	.00054	F .12414	242.82	.04916
Stddev	.00003	.108	.00206	.0162	.0073	.00001	.00317	.97	.00087
%RSD	.28681	.70945	.34983	.28882	.53846	2.2938	2.5549	.39814	1.7713

#1	.01207	15.078	.58723	5.6141	1.3522	.00053	.12189	242.14	.04978
#2	.01212	15.230	.59014	5.5912	1.3626	.00055	.12638	243.50	.04855

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03360	F 1.0548	1.0314	71.685	43.101	.13510	53.402	6.3440	.35199
Stddev	.00017	.0027	.0043	.379	.311	.00230	.092	.0165	.00029
%RSD	.49693	.26062	.41186	.52840	.72246	1.7056	.17317	.25948	.08151

#1	.03348	1.0567	1.0284	71.417	42.881	.13347	53.336	6.3323	.35219
#2	.03372	1.0528	1.0344	71.953	43.321	.13673	53.467	6.3556	.35179

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		1.0000							
Low Limit		-.02000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2302.2	.24714	W 11.009	1.2789	F 593.03	.05674	.04360	26.337	56.362
Stddev	12.9	.00008	.002	.0072	2.93	.00128	.00281	.201	.431
%RSD	.56188	.03219	.01621	.56430	.49443	2.2523	6.4554	.76394	.76394

#1	2293.1	.24720	11.011	1.2738	595.11	.05584	.04161	26.195	56.058
#2	2311.4	.24708	11.008	1.2840	590.96	.05764	.04559	26.480	56.666

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00		2.0000		200.00				
Low Limit	11.000		-1.0000		-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 49.081	1.6194	.01881	.96590	-.00875	-.02783	.06733	3.2208	.04325
Stddev	.075	.0083	.00106	.00092	.00571	.01729	.00110	.0474	.00105
%RSD	.15211	.51333	5.6601	.09562	65.218	62.123	1.6324	1.4707	2.4328

#1	49.134	1.6135	.01957	.96525	-.01279	-.04005	.06655	3.1873	.04251
#2	49.028	1.6252	.01806	.96656	-.00472	-.01560	.06810	3.2543	.04399

Check ?	Chk Fail	Chk Pass							
High Limit	20.000								
Low Limit	-.10000								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2827.3	49797.	6593.3
Stddev	1.1	90.	7.1
%RSD	.03752	.18091	.10795

#1	2826.5	49861.	6598.3
#2	2828.0	49733.	6588.2

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00187	W 3.0837	.11884	1.2801	.27647	.00018	.02555	50.281	.01005
Stddev	.00060	.0490	.00171	.0026	.00082	.00008	.00019	.101	.00042
%RSD	32.037	1.5888	1.4398	.20152	.29510	43.833	.72644	.20062	4.1475

#1	.00145	3.0491	.12005	1.2782	.27589	.00013	.02542	50.210	.01035
#2	.00230	3.1183	.11763	1.2819	.27704	.00024	.02568	50.352	.00976

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		500.00							
Low Limit		3.2000							

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00692	W .24693	.21847	14.111	8.7774	.03041	11.940	1.3482	.07334
Stddev	.00025	.00273	.00124	.022	.0024	.00016	.003	.0013	.00039
%RSD	3.6358	1.1048	.56878	.15293	.02684	.51400	.02574	.09526	.53372

#1	.00710	.24885	.21935	14.095	8.7791	.03030	11.943	1.3473	.07306
#2	.00675	.24500	.21759	14.126	8.7757	.03052	11.938	1.3491	.07362

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	465.58	.05650	W 2.2188	.28793	122.86	.01069	.01160	5.3371	11.421
Stddev	.29	.00036	.0204	.00151	.43	.00193	.00066	.0113	.024
%RSD	.06304	.64025	.91966	.52459	.35264	18.070	5.7045	.21109	.21109

#1	465.37	.05676	2.2332	.28900	122.55	.01205	.01207	5.3292	11.404
#2	465.78	.05625	2.2044	.28686	123.17	.00932	.01113	5.3451	11.438

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 11.164	.32847	.00634	.20968	-.00660	-.02911	.01348	.69013	.01050
Stddev	.002	.00081	.00027	.00066	.00415	.00946	.00028	.00466	.00019
%RSD	.01502	.24603	4.3206	.31444	62.895	32.507	2.0517	.67484	1.7838

#1	11.165	.32790	.00653	.21014	-.00366	-.03580	.01328	.69342	.01064
#2	11.163	.32904	.00614	.20921	-.00953	-.02242	.01367	.68684	.01037

Check ?	Chk Warn	Chk Pass							
High Limit	2.0000								
Low Limit	-.05000								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3016.8	53401.	6710.4
Stddev	1.8	2.	20.2
%RSD	.05870	.00293	.30147

#1	3015.6	53402.	6724.7
#2	3018.1	53400.	6696.1

Sample Name: CCVH-3294468 Acquired: 5/31/2015 4:03:44 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: broanderl Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0718	45.106	-0.0165	.02299	.00086	.00008	1.0323	.03955	.00001	-0.00036	.00074	-0.0136
Stddev	.00024	.078	.00551	.00095	.00024	.00000	.0015	.00249	.00008	.00012	.00015	.00018
%RSD	3.3860	.17283	333.49	4.1130	28.311	.87454	.15059	6.2972	1044.1	34.140	20.504	13.499

#1	-0.0700	45.161	-0.0555	.02365	.00069	.00008	1.0334	.03779	.00007	-0.00044	.00063	-0.0149
#2	-0.0735	45.051	.00224	.02232	.00103	.00008	1.0312	.04132	-0.00005	-0.00027	.00085	-0.0123

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 39.453	.16458	.00248	.05364	-0.0137	-0.00060	251.29	.00213	.00821	-0.00013	5.1525	-0.1170
Stddev	.121	.02841	.00097	.00648	.00003	.00016	1.21	.00016	.00229	.00042	.0360	.00197
%RSD	.30559	17.259	39.317	12.079	2.5313	26.440	.48222	7.3366	27.912	313.63	.69855	16.858

#1	39.368	.18467	.00317	.05822	-0.0134	-0.00049	250.44	.00202	.00659	.00016	5.1780	-0.1310
#2	39.538	.14450	.00179	.04906	-0.0139	-0.00071	252.15	.00224	.00984	-0.00043	5.1271	-0.1031

Check ?	Chk Fail	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None
Value	50.000											
Range	-10.490%											

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00667	-0.04003	-0.08567	-0.00034	.00040	4.8314	-0.1147	.00174	10.350	.00375	-0.00077	-0.13228
Stddev	.00240	.01227	.02625	.00058	.00002	.0220	.00026	.00008	.091	.00023	.00062	.00094
%RSD	36.012	30.643	30.643	170.17	4.5188	.45467	2.2537	4.4521	.88021	6.0318	79.950	.70870

#1	.00497	-0.03136	-0.06711	-0.00075	.00038	4.8158	-0.1129	.00169	10.285	.00359	-0.00033	-0.13294
#2	.00837	-0.04871	-0.10424	.00007	.00041	4.8469	-0.1165	.00180	10.414	.00391	-0.00121	-0.13162

Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3084.1	54511.	6550.0
Stddev	2.9	65.	37.9
%RSD	.09471	.11996	.57885

#1	3086.2	54464.	6576.8
#2	3082.1	54557.	6523.1

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48551	.52156	1.0066	.54330	.48526	F .44320	-.00022	F 4.3972	.51209	.50118	.52030	.49774
Stddev	.00291	.00257	.0032	.00083	.00023	.00036	.00010	.0307	.00256	.00089	.00145	.00077
%RSD	.59937	.49349	.32199	.15251	.04680	.08122	46.827	.69861	.49908	.17710	.27775	.15389

#1	.48345	.51974	1.0043	.54388	.48542	.44346	-.00029	4.3755	.51390	.50055	.51928	.49720
#2	.48757	.52338	1.0089	.54271	.48510	.44295	-.00014	4.4189	.51029	.50180	.52133	.49829

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						.50000		5.0000				
Range						-10.490%		-10.490%				

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 2.0544	49.710	1.0112	18.875	.49295	.49271	5.3856	.49451	1.0500	.98117	.10116	1.0390
Stddev	.0117	.011	.0010	.079	.00197	.00113	.0077	.00128	.0053	.00086	.00319	.0012
%RSD	.57070	.02119	.10037	.41977	.39986	.22998	.14218	.25831	.50299	.08775	3.1492	.11161

#1	2.0462	49.703	1.0120	18.819	.49156	.49191	5.3910	.49361	1.0463	.98056	.10341	1.0382
#2	2.0627	49.718	1.0105	18.931	.49434	.49351	5.3802	.49542	1.0538	.98178	.09891	1.0398

Check ?	Chk Fail	Chk Pass	None	Chk Pass								
Value	2.5000											
Range	-10.490%											

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0048	F 4.2139	F 9.0178	.99027	.47981	.00175	.49478	1.0122	-.02547	.50447	.46828	.45408
Stddev	.0007	.0965	.2065	.00053	.00015	.00351	.00163	.0047	.00568	.00275	.00107	.00700
%RSD	.06646	2.2904	2.2904	.05335	.03054	200.22	.32980	.46730	22.293	.54436	.22773	1.5406

#1	1.0053	4.1457	8.8717	.98990	.47991	.00424	.49362	1.0089	-.02948	.50253	.46753	.44914
#2	1.0044	4.2821	9.1638	.99064	.47971	-.00073	.49593	1.0155	-.02145	.50641	.46904	.45903

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value		5.0000	10.700									
Range		-10.490%	-10.490%									

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3128.6	55262.	6613.0
Stddev	1.6	199.	31.2
%RSD	.04960	.35977	.47204

#1	3127.5	55402.	6635.1
#2	3129.7	55121.	6590.9

Sample Name: CCB Acquired: 5/31/2015 4:08:54 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: broanderl Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0053	.00036	.00059	.01759	.00004	.00007	.00192	.00309	-0.0011	.00006	.00016	-0.00130	-0.00040
Stddev	.00048	.00025	.00660	.00056	.00006	.00002	.00130	.00045	.00003	.00011	.00023	.00015	.00050
%RSD	90.541	69.097	1115.0	3.2090	130.89	30.832	67.544	14.442	23.574	174.38	142.12	11.468	125.67

#1	-0.0019	.00053	-0.00407	.01799	.00009	.00009	.00100	.00278	-0.0012	-0.00001	.00033	-0.00120	-0.00076
#2	-0.00087	.00018	.00526	.01719	.00000	.00006	.00283	.00341	-0.00009	.00014	.00000	-0.00141	-0.00004

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10525	.00037	-0.00100	.00005	.00058	.33528	-0.00008	.00191	.00019	.08333	-0.00072	.00091	-0.03309
Stddev	.02065	.00080	.00189	.00004	.00028	.00405	.00026	.00091	.00138	.00140	.00559	.00315	.00064
%RSD	19.625	216.09	189.01	76.299	48.292	1.2084	329.42	47.962	737.03	1.6780	779.71	344.89	1.9330

#1	.11985	-0.0020	-0.00234	.00008	.00038	.33241	-0.0026	.00126	-0.00079	.08432	-0.00467	-0.00132	-0.03354
#2	.09064	.00094	.00034	.00003	.00078	.33814	.00010	.00255	.00116	.08235	.00323	.00315	-0.03263

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.07081	.00047	.00017	.00192	.00053	.00021	-0.01008	.00030	.00014	.00212
Stddev	.00137	.00028	.00002	.00222	.00000	.00071	.02159	.00040	.00008	.00145
%RSD	1.9330	58.713	12.729	115.94	.08237	336.87	214.26	130.84	52.919	68.521

#1	-0.07177	.00066	.00019	.00035	.00053	-0.00029	.00519	.00059	.00009	.00109
#2	-0.06984	.00027	.00016	.00349	.00053	.00072	-0.02535	.00002	.00020	.00314

Check ?	Chk Pass									
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3158.7	56245.	6527.6
Stddev	8.9	110.	24.4
%RSD	.28310	.19503	.37441

#1	3165.0	56322.	6510.3
#2	3152.4	56167.	6544.9

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00965	.11077	.01425	.12161	.01019	.00097	.10504	.18833	.00513	.01059	.01080	.01445
Stddev	.00056	.00014	.00099	.00106	.00009	.00002	.00099	.00227	.00019	.00006	.00004	.00020
%RSD	5.8076	.12710	6.9561	.87316	.88991	2.1290	.94625	1.2048	3.7814	.58272	.35543	1.4161

#1	.00925	.11087	.01496	.12236	.01026	.00096	.10574	.18672	.00526	.01055	.01077	.01431
#2	.01005	.11067	.01355	.12086	.01013	.00099	.10433	.18993	.00499	.01063	.01082	.01460

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08651	3.1699	.01055	.20563	.01052	.01963	F 1.3348	.04073	3.0655	.00777	.08360	F .00686
Stddev	.00066	.0295	.00072	.00603	.00006	.00020	.0013	.00052	.0152	.00083	.00584	.00037
%RSD	.76216	.93180	6.8716	2.9333	.52834	.99495	.09472	1.2851	.49479	10.688	6.9870	5.3411

#1	.08605	3.1490	.01106	.20136	.01048	.01977	1.3339	.04110	3.0762	.00835	.08773	.00660
#2	.08698	3.1908	.01003	.20989	.01056	.01950	1.3357	.04036	3.0548	.00718	.07947	.00712

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Fail					
Value							1.0000					.01000
Range							30.000%					-30.000%

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01640	.40679	.87053	.10278	.01008	.01855	.01030	.01447	.04340	.01020	.02091	.01386
Stddev	.00092	.00052	.00111	.00103	.00017	.00027	.00002	.00181	.01538	.00007	.00027	.00030
%RSD	5.5866	.12742	.12742	.99897	1.6632	1.4383	.17225	12.531	35.435	.72538	1.2820	2.1404

#1	.01705	.40642	.86974	.10206	.00996	.01874	.01031	.01576	.03253	.01025	.02072	.01407
#2	.01575	.40716	.87131	.10351	.01019	.01836	.01028	.01319	.05427	.01014	.02110	.01365

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3153.3	55592.	6534.8
Stddev	1.7	249.	65.9
%RSD	.05383	.44751	1.0078

#1	3154.5	55768.	6488.2
#2	3152.1	55416.	6581.3

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00965	.11077	.01425	.12161	.01019	.00097	.10504	.18833	.00513	.01059	.01080	.01445
Stddev	.00056	.00014	.00099	.00106	.00009	.00002	.00099	.00227	.00019	.00006	.00004	.00020
%RSD	5.8076	.12710	6.9561	.87316	.88991	2.1290	.94625	1.2048	3.7814	.58272	.35543	1.4161

#1	.00925	.11087	.01496	.12236	.01026	.00096	.10574	.18672	.00526	.01055	.01077	.01431
#2	.01005	.11067	.01355	.12086	.01013	.00099	.10433	.18993	.00499	.01063	.01082	.01460

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08651	3.1699	.01055	.20563	.01052	.01963	F 1.3348	.04073	3.0655	.00777	.08360	F .00686
Stddev	.00066	.0295	.00072	.00603	.00006	.00020	.0013	.00052	.0152	.00083	.00584	.00037
%RSD	.76216	.93180	6.8716	2.9333	.52834	.99495	.09472	1.2851	.49479	10.688	6.9870	5.3411

#1	.08605	3.1490	.01106	.20136	.01048	.01977	1.3339	.04110	3.0762	.00835	.08773	.00660
#2	.08698	3.1908	.01003	.20989	.01056	.01950	1.3357	.04036	3.0548	.00718	.07947	.00712

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Fail					
Value							1.0000					.01000
Range							30.000%					-30.000%

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01640	.40679	.87053	.10278	.01008	.01855	.01030	.01447	.04340	.01020	.02091	.01386
Stddev	.00092	.00052	.00111	.00103	.00017	.00027	.00002	.00181	.01538	.00007	.00027	.00030
%RSD	5.5866	.12742	.12742	.99897	1.6632	1.4383	.17225	12.531	35.435	.72538	1.2820	2.1404

#1	.01705	.40642	.86974	.10206	.00996	.01874	.01031	.01576	.03253	.01025	.02072	.01407
#2	.01575	.40716	.87131	.10351	.01019	.01836	.01028	.01319	.05427	.01014	.02110	.01365

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3153.3	55592.	6534.8
Stddev	1.7	249.	65.9
%RSD	.05383	.44751	1.0078

#1	3154.5	55768.	6488.2
#2	3152.1	55416.	6581.3

ICP Data Review Checklist 279694, 279695, 279698

TALS BATCH NUMBER: 279689, 279691, 279692 Earliest due date: 6/2/15
 Run Date: 5/30/15 Analyst: Laura Branher Instrument: MT-25
 QC programs/Methods Run: 6010C, 200.7, 6010B, SAR

Review Items	Yes	No	N/A	2nd Level
A. Preparation/Matrix QC				
1. LCS done per prep batch and within QC limits?	/			/
2. Method blank done per prep batch and < 1/2 RL or CRDL (CLP) or < 2.2x MDL 200.7?	/			/
3. MS run at required frequency and within limits?	/			/
4. MSD or DU run at required frequency and RPD within SOP limits?	/			/
5. Serial dilution done per prep batch (or per SDG for CLP)?	/			/
6. Post digest spike analyzed if required (CLP, DOD & AFCEE only)? NCM Whether needed for DODV3, DODV4, DODV5, AFCEE 4.0, 6010C?	/			/
B. Calibration/Instrument Run QC				
1. ICV/CCV analyzed at appropriate frequency and within control limits? (6010B: CLP = 90 - 110%; 200.7: ICV = 95 - 105%, CCV 90-110%) If not in control, was the ICV or CCV reanalyzed twice to show return to control as per NELAP?	/			/
2. ICB/CCB analyzed at appropriate frequency and < 1/2 RL or < 2X MDL (DOD V3, AFCEE 4.0)? Was it less than the LODV (DODV4 & DODV5)	/			/
3. High Standard (HIGH) reanalyzed before samples and recovered within QC limits? (+-5%)	/			/
4. RL STD run and recovered within QC limits? ($\pm 50\%$ for non-CLP, $\pm 20\%$ for DoD V3 / DoD V4 / DoD V5 / AFCEE 4.0 / USACE)	/			/
5. Was the LLICV/LLCCV analyzed at appropriate frequency for 6010C and within control (+-30% or +-20%)	/			/
6. ICSA/ICSAB run at required frequency and within SOP limits? (ICSA < 2X MDL AFCEE 4.0, DOD V3 or < RL std work or < 2X RL 6010C, DOD V4, DOD V5)	/			/
C. Sample Results				
1. For 6010B, were samples with concentrations > the linear range for any parameter diluted and reanalyzed? For 200.7, were samples with concentrations within 90% of the linear range diluted and reanalyzed?	/			/
2. For DOD, were samples with concentrations > the daily linear range for any parameter diluted and reanalyzed?	/			/
3. Are all reported results bracketed by in control QC?	/			/
D. Other				
1. Are all nonconformances documented appropriately?	/			/
2. Calculations checked for errors?	/			/
3. Transcriptions checked for errors? (Example: Are dilution factors that are entered into the sequence log correct?)	/			/
4. All client/project specific requirements met?	/			/
5. Date/time of analysis verified as correct?	/			/
6. PDF attached, verified uncorrupted?	/			/

Analyst: L. Branher Date: 6/1/15

Comments: _____

2nd Level Reviewer: ES Date: 6-2-15

Comments: _____

Sample Name: ICIS Acquired: 6/1/2015 10:41:45 Type: Cal
 Method: 6500_025(v16) Mode: IR Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-0.0124	.00068	-0.00313	-0.00019	.00152	.00042	-0.00946	-0.00202	.00422	.00002	-0.00058	-0.37234
Stddev	.00003	.00003	.00010	.00001	.00005	.00049	.00046	.00048	.00006	.00039	.00009	.13091
%RSD	2.7514	4.1867	3.2644	4.1394	3.1703	115.28	4.8666	23.960	1.3973	1819.2	16.316	35.158

#1	-0.0122	.00066	-0.00306	-0.00020	.00148	.00077	-0.00913	-0.00168	.00417	-0.00026	-0.00052	-.46491
#2	-0.0127	.00070	-0.00320	-0.00019	.00155	.00008	-0.00978	-0.00236	.00426	.00030	-0.00065	-.27978

Elem	Cu3247	Fe2599	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Na8183	Ni2316	P_1782
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00216	.00189	.00027	-0.00040	-0.00513	.00008	.00009	-0.00004	.00393	-0.00935	-0.00143	.00024
Stddev	.00000	.00024	.00015	.00080	.00036	.00002	.00003	.00016	.00121	.00140	.00010	.00001
%RSD	.10748	12.747	55.745	199.10	7.0510	30.309	28.310	461.14	30.720	14.971	6.7625	5.7707

#1	.00216	.00172	.00037	-0.00097	-0.00539	.00010	.00007	-0.00015	.00478	-0.00836	-0.00150	.00023
#2	.00217	.00206	.00016	.00016	-0.00487	.00006	.00011	.00008	.00307	-.01034	-0.00137	.00024

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-0.00088	-0.00036	.00051	.00057	.00145	.00145	.00015	-0.00430	.00006	-0.00014	-0.00030	-0.00011
Stddev	.00002	.00004	.00035	.00004	.00025	.00025	.00024	.00060	.00005	.00002	.00011	.00003
%RSD	2.0286	11.099	69.405	6.4106	17.037	17.037	159.99	13.946	73.652	14.417	36.056	27.272

#1	-0.00087	-0.00033	.00026	.00059	.00162	.00162	.00032	-0.00472	.00003	-0.00013	-0.00023	-0.00009
#2	-0.00089	-0.00039	.00076	.00054	.00128	.00128	-0.00002	-0.00387	.00010	-0.00015	-0.00038	-0.00013

Elem	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S
Avg	-0.00088	.00002	-0.00254
Stddev	.00008	.00001	.00044
%RSD	9.2482	26.374	17.149

#1	-0.00082	.00002	-0.00285
#2	-0.00093	.00003	-0.00223

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3660.8	63279.	8385.9
Stddev	2.1	95.	63.7
%RSD	.05644	.15049	.75996

#1	3659.4	63346.	8431.0
#2	3662.3	63212.	8340.9

Sample Name: ICAL1 Acquired: 6/1/2015 10:44:08 Type: Cal
 Method: 6500_025(v16) Mode: IR Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.20016	.22355	.08779	.28948	4.7155	6.6520	1.6532	1.7954	.87458	3112.0	.30467	.73992	3.3679
Stddev	.00030	.00044	.00026	.00029	.0001	.0028	.0010	.0055	.00048	6.3	.00132	.00238	.0050
%RSD	.14903	.19769	.29977	.09959	.00116	.04277	.05763	.30621	.05516	.20092	.43443	.32216	.14849

#1	.19995	.22324	.08798	.28968	4.7154	6.6540	1.6525	1.7993	.87492	3116.4	.30374	.73824	3.3715
#2	.20038	.22386	.08760	.28928	4.7155	6.6499	1.6539	1.7915	.87424	3107.6	.30561	.74161	3.3644

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	Sb2068	Se1960	Si2881	SiO2	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.0455	.69315	1.0015	.45517	1.4585	.67818	.10018	.44954	.19735	.08235	.26150	.26150	.20747
Stddev	.0032	.00181	.0017	.00033	.0029	.00029	.00027	.00129	.00162	.00043	.00153	.00153	.00010
%RSD	.15396	.26171	.16445	.07229	.20081	.04261	.27017	.28655	.82112	.52788	.58632	.58632	.04696

#1	2.0477	.69187	1.0027	.45541	1.4606	.67797	.10038	.45045	.19849	.08266	.26041	.26041	.20754
#2	2.0433	.69444	1.0003	.45494	1.4565	.67838	.09999	.44863	.19620	.08204	.26258	.26258	.20741

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9.3970	.27753	.16944	.16817	.01836	.32738
Stddev	.0083	.00041	.00034	.00039	.00008	.00092
%RSD	.08787	.14827	.19852	.23216	.41141	.28013

#1	9.4028	.27782	.16920	.16845	.01842	.32673
#2	9.3911	.27723	.16968	.16789	.01831	.32803

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3465.8	59097.	7587.1
Stddev	10.9	108.	4.2
%RSD	.31325	.18208	.05587

#1	3473.5	59173.	7590.1
#2	3458.1	59021.	7584.1

Sample Name: ICAL2 Acquired: 6/1/2015 10:46:34 Type: Cal
 Method: 6500_025(v16) Mode: IR Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Al3092	Bi2230	Fe2714	Na8183	S_1820	Th2837	U_3701
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.0754	.31419	.67373	2.1590	.27917	.45856	.12199
Stddev	.0010	.00381	.00030	.0034	.00356	.00036	.00041
%RSD	.03185	1.2123	.04398	.15627	1.2756	.07773	.33793
#1	3.0747	.31689	.67352	2.1614	.28168	.45881	.12229
#2	3.0761	.31150	.67394	2.1566	.27665	.45831	.12170
Int. Std.	Y_2243	Y_3600	Y_3774				
Units	Cts/S	Cts/S	Cts/S				
Avg	3289.2	55352.	7045.5				
Stddev	5.1	3.	17.1				
%RSD	.15523	.00483	.24286				
#1	3285.6	55354.	7033.4				
#2	3292.8	55350.	7057.6				

Sample Name: s1-3296663 Acquired: 6/1/2015 10:49:16 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0233	1.0238	2.0083	1.0174	.99337	1.0030	-.00070	10.061	1.0200	1.0048	.97406	1.0108	5.0779
Stddev	.0037	.0042	.0108	.0076	.00144	.0038	.00019	.047	.0032	.0026	.00007	.0057	.0469
%RSD	.35720	.40751	.53705	.74251	.14521	.37675	27.843	.46579	.31674	.25884	.00697	.56327	.92255
#1	1.0207	1.0268	2.0159	1.0227	.99235	1.0003	-.00084	10.028	1.0223	1.0067	.97401	1.0067	5.0448
#2	1.0259	1.0209	2.0007	1.0120	.99439	1.0057	-.00056	10.094	1.0177	1.0030	.97411	1.0148	5.1111

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	100.53	2.0051	40.828	1.0159	1.0005	10.114	1.0065	2.0339	2.0152	-.01100	2.0247	2.0140	10.272
Stddev	.10	.0007	.163	.0001	.0139	.001	.0012	.0295	.0294	.00319	.0313	.0371	.285
%RSD	.10204	.03396	.39868	.01220	1.3903	.00680	.12261	1.4499	1.4611	28.974	1.5466	1.8434	2.7779
#1	100.61	2.0055	40.713	1.0160	1.0104	10.114	1.0074	2.0547	2.0360	-.01326	2.0469	2.0403	10.070
#2	100.46	2.0046	40.944	1.0158	.99070	10.113	1.0056	2.0130	1.9944	-.00875	2.0026	1.9878	10.474

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	21.982	2.0164	.99814	-.00830	1.0107	2.0274	-.03090	1.0154	1.0251	1.0119
Stddev	.611	.0273	.00188	.00039	.0001	.0311	.02421	.0022	.0006	.0222
%RSD	2.7779	1.3556	.18832	4.7211	.00847	1.5314	78.356	.22060	.05697	2.1969
#1	21.550	2.0357	.99681	-.00857	1.0108	2.0493	-.04802	1.0138	1.0255	.99620
#2	22.414	1.9970	.99947	-.00802	1.0107	2.0054	-.01378	1.0170	1.0246	1.0276

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3348.2	56483.	7148.0
Stddev	1.9	118.	55.9
%RSD	.05691	.20895	.78228
#1	3346.9	56399.	7187.5
#2	3349.6	56566.	7108.5

Sample Name: s2-3294467 Acquired: 6/1/2015 10:51:42 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00610	100.67	-.00215	.00131	.00139	.00008	1.9923	.06520	.00014	-.00026	.00085	-.00172	100.41
Stddev	.00009	.20	.00258	.00054	.00001	.00002	.0108	.00058	.00021	.00021	.00002	.00029	.07
%RSD	1.4793	.20116	120.06	41.309	.49297	29.685	.54431	.89383	144.91	82.174	2.6272	16.917	.07365

#1	.00604	100.53	-.00398	.00170	.00139	.00007	1.9846	.06478	.00000	-.00041	.00084	-.00192	100.36
#2	.00617	100.82	-.00033	.00093	.00140	.00010	2.0000	.06561	.00029	-.00011	.00087	-.00151	100.46

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.33064	.00843	.10349	-.00302	-.00039	496.16	.00517	.00196	.00359	10.062	-.01675	.01079	-.02189
Stddev	.06166	.00050	.00127	.00001	.00014	.72	.00059	.00029	.00318	.112	.00176	.00219	.02245
%RSD	18.648	5.9152	1.2242	.25573	35.522	.14474	11.319	14.581	88.740	1.1156	10.526	20.308	102.59

#1	.28704	.00879	.10439	-.00301	-.00048	495.65	.00476	.00216	.00583	9.9830	-.01800	.00924	-.00601
#2	.37424	.00808	.10259	-.00302	-.00029	496.67	.00558	.00176	.00134	10.142	-.01550	.01233	-.03777

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.04684	-.00632	.00079	9.9677	-.02477	.00360	20.034	.00403	.00009	-.25528
Stddev	.04805	.00128	.00014	.0164	.00002	.00029	.006	.00034	.00038	.00086
%RSD	102.59	20.289	18.110	.16415	.06803	8.1433	.02951	8.5176	445.14	.33570

#1	-.01286	-.00722	.00069	9.9561	-.02476	.00339	20.030	.00428	-.00019	-.25589
#2	-.08082	-.00541	.00089	9.9792	-.02478	.00380	20.038	.00379	.00036	-.25467

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3246.4	54492.	7057.3
Stddev	19.7	29.	27.3
%RSD	.60632	.05332	.38674

#1	3260.3	54513.	7076.6
#2	3232.5	54472.	7038.0

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00189	39.707	-.00396	-.00082	.00079	-.00010	.49240	.01615	.00019	.00029	.00076
Stddev	.00043	.090	.00107	.00011	.00011	.00002	.00314	.00349	.00008	.00019	.00018
%RSD	22.998	.22647	27.030	13.856	14.299	19.372	.63725	21.617	42.021	62.871	23.145

#1	.00158	39.770	-.00472	-.00074	.00087	-.00009	.49018	.01862	.00014	.00016	.00063
#2	.00220	39.643	-.00321	-.00090	.00071	-.00011	.49462	.01368	.00025	.00043	.00088

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00014	77.157	.16472	.00413	.02484	-.00025	-.00104	39.891	.00281	-.00773	.00159
Stddev	.00010	1.240	.02840	.00024	.00254	.00000	.00024	.755	.00003	.00089	.00152
%RSD	72.936	1.6070	17.244	5.7107	10.224	1.7573	23.252	1.8927	1.2198	11.528	95.487

#1	.00007	78.034	.14463	.00396	.02664	-.00025	-.00122	40.425	.00284	-.00710	.00052
#2	.00020	76.281	.18480	.00430	.02304	-.00025	-.00087	39.358	.00279	-.00836	.00266

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 3.6482	-.00802	-.00281	-.01090	-.02332	-.00350	.00020	2.8638	-.00808	.00141	4.9459
Stddev	.0072	.00061	.00515	.01090	.02333	.00001	.00017	.0027	.00017	.00105	.0537
%RSD	.19703	7.6331	183.59	100.04	100.04	.32175	82.711	.09556	2.0829	74.606	1.0854

#1	3.6431	-.00759	.00084	-.01861	-.03982	-.00350	.00032	2.8618	-.00820	.00215	4.9838
#2	3.6532	-.00846	-.00645	-.00319	-.00682	-.00351	.00008	2.8657	-.00796	.00066	4.9079

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	4.0000										
Range	-5.4900%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00149	-.00085	-.07644
Stddev	.00028	.00075	.00097
%RSD	18.551	89.118	1.2645

#1	.00169	-.00031	-.07576
#2	.00130	-.00138	-.07713

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3393.3	57371.	7005.8
Stddev	2.4	194.	58.9
%RSD	.07055	.33841	.84085

#1	3391.6	57509.	6964.1
#2	3395.0	57234.	7047.5

Sample Name: ICV-3289337 Acquired: 6/1/2015 10:57:39 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24434	.26186	.23819	.24118	.23847	.23834	-.00032	1.9767	.24839	.25046	.24165
Stddev	.00074	.00147	.00110	.00437	.00029	.00009	.00227	.0196	.00360	.00276	.00298
%RSD	.30210	.55973	.46165	1.8128	.12274	.03843	709.26	.98953	1.4489	1.1022	1.2325

#1	.24381	.26290	.23897	.24428	.23867	.23841	-.00192	1.9629	.25093	.25241	.24376
#2	.24486	.26082	.23742	.23809	.23826	.23828	.00128	1.9906	.24584	.24850	.23955

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass					
Value											
Range											

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24374	.25428	19.481	.25091	9.9909	.24876	.24410	1.9617	.25054	1.9582	.25129
Stddev	.00002	.00079	.082	.00150	.0030	.00143	.00286	.0087	.00310	.0301	.00394
%RSD	.00830	.31230	.41840	.59637	.02961	.57378	1.1706	.44507	1.2362	1.5344	1.5691

#1	.24375	.25372	19.423	.24985	9.9888	.24775	.24612	1.9556	.25273	1.9794	.25408
#2	.24372	.25484	19.539	.25196	9.9930	.24976	.24208	1.9679	.24835	1.9369	.24850

Check ?	Chk Pass										
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01872	.24465	W_47251	2.0009	4.2820	.50467	.23924	-.00351	.24882	.50794	.00686
Stddev	.00560	.00516	.00819	.0321	.0688	.00885	.00060	.00031	.00166	.00800	.00578
%RSD	29.893	2.1077	1.7323	1.6066	1.6066	1.7533	.24898	8.8187	.66905	1.5744	84.123

#1	-.01476	.24830	.47830	1.9782	4.2334	.51093	.23966	-.00329	.24764	.51359	.00278
#2	-.02268	.24100	.46672	2.0237	4.3306	.49841	.23882	-.00373	.25000	.50228	.01095

Check ?	None	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None
Value			.50000								
Range			-5.4900%								

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.24618	.25091	.24113
Stddev	.00120	.00273	.00070
%RSD	.48772	1.0871	.29130

#1	.24533	.24899	.24063
#2	.24702	.25284	.24162

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3389.2	57273.	7109.2
Stddev	3.5	146.	16.5
%RSD	.10261	.25506	.23268

#1	3386.7	57377.	7120.9
#2	3391.6	57170.	7097.5

Sample Name: ICVL-3302200 Acquired: 6/1/2015 11:00:30 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00969	.10600	.01535	.09701	.01052	.00096	.10306	.21521	.00505	.01057	.01030	.01621
Stddev	.00057	.00001	.00181	.00106	.00006	.00004	.00164	.00394	.00005	.00020	.00023	.00013
%RSD	5.9174	.00645	11.810	1.0952	.59492	4.1685	1.5909	1.8290	1.0846	1.8637	2.2328	.82606

#1	.01010	.10600	.01663	.09626	.01047	.00093	.10190	.21243	.00501	.01043	.01046	.01631
#2	.00928	.10599	.01407	.09776	.01056	.00099	.10422	.21800	.00509	.01071	.01014	.01612

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10289	3.2146	F .01481	.21969	.01068	.01895	1.0149	.04233	2.8286	.00858	-.01915	.00764
Stddev	.00142	.0302	.00235	.00217	.00017	.00025	.0019	.00042	.0111	.00122	.00188	.00090
%RSD	1.3829	.93802	15.881	.98911	1.5469	1.3059	.18657	.99975	.39362	14.171	9.8278	11.789

#1	.10189	3.2359	.01647	.21815	.01080	.01877	1.0163	.04203	2.8207	.00944	-.02048	.00700
#2	.10390	3.1933	.01315	.22123	.01056	.01912	1.0136	.04263	2.8365	.00772	-.01782	.00827

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .00986	.50696	1.0849	.09877	.01019	.01255	.00963	.01771	.05308	.00940	.02330	.01112
Stddev	.00359	.00639	.0137	.00244	.00005	.00027	.00001	.00193	.02072	.00054	.00000	.00002
%RSD	36.405	1.2613	1.2613	2.4656	.50451	2.1274	.15389	10.909	39.038	5.7850	.00602	.19258

#1	.01239	.50244	1.0752	.09704	.01023	.01274	.00962	.01634	.03842	.00902	.02330	.01113
#2	.00732	.51148	1.0946	.10049	.01016	.01236	.00964	.01907	.06773	.00979	.02330	.01110

Check ?	Chk Fail	Chk Pass										
Value	.01500											
Range	-30.000%											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3461.9	57896.	7101.6
Stddev	2.5	60.	21.1
%RSD	.07349	.10442	.29706

#1	3460.1	57939.	7086.7
#2	3463.7	57854.	7116.5

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00283	48.675	-.00181	-.00075	.00064	.00002	1.00000	.03165	-.00014	-.00042	.00076	.00050
Stddev	.00016	.282	.00572	.00097	.00035	.00004	.00160	.00082	.00017	.00006	.00007	.00013
%RSD	5.4989	.58018	315.21	129.34	55.503	157.75	.15968	2.5947	118.17	14.912	8.8450	26.279

#1	.00294	48.475	-.00586	-.00144	.00089	.00000	.99887	.03107	-.00026	-.00038	.00071	.00041
#2	.00272	48.874	.00223	-.00006	.00039	.00005	1.0011	.03223	-.00002	-.00047	.00080	.00059

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None
Value												
Range												

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.696	.14025	.00197	.05433	-.00150	-.00087	242.29	.00230	-.00221	.00071	4.8622	-.00966
Stddev	.437	.01114	.00094	.00032	.00008	.00028	.06	.00030	.00327	.00083	.0296	.00145
%RSD	.89826	7.9416	47.691	.58689	5.5825	32.501	.02650	13.190	147.92	116.89	.60932	15.027

#1	48.387	.14813	.00130	.05456	-.00156	-.00067	242.34	.00209	-.00452	.00130	4.8413	-.00863
#2	49.005	.13238	.00263	.05411	-.00144	-.00107	242.25	.00251	.00010	.00012	4.8832	-.01068

Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00028	-.00612	-.01309	-.00348	.00043	4.8674	-.01238	.00429	10.235	.00198	-.00045	-.12722
Stddev	.00120	.00298	.00638	.00135	.00006	.0132	.00043	.00227	.054	.00087	.00010	.00059
%RSD	431.00	48.717	48.717	38.844	13.336	2.7122	3.5034	53.037	5.2771	44.098	22.101	.46197

#1	-.00057	-.00401	-.00858	-.00253	.00039	4.8767	-.01268	.00590	10.274	.00260	-.00038	-.12763
#2	.00113	-.00822	-.01760	-.00444	.00047	4.8581	-.01207	.00268	10.197	.00136	-.00052	-.12680

Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3289.2	55716.	7160.5
Stddev	4.8	316.	78.6
%RSD	.14578	.56639	1.0979

#1	3292.6	55493.	7216.1
#2	3285.9	55939.	7104.9

Sample Name: CCV-3296664 Acquired: 6/1/2015 11:06:02 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50380	.52011	.98383	.49538	.48917	.49215	.00032	5.0650	.49783	.51982	.49249	.49686	2.5152
Stddev	.00293	.00261	.00436	.00209	.00318	.00174	.00154	.0153	.00076	.00300	.00024	.00326	.0050
%RSD	.58207	.50178	.44267	.42110	.64981	.35337	484.38	.30224	.15278	.57779	.04949	.65539	.19959

#1	.50172	.52195	.98691	.49685	.48692	.49092	-.00077	5.0542	.49837	.52194	.49266	.49456	2.5117
#2	.50587	.51826	.98075	.49390	.49141	.49338	.00141	5.0758	.49729	.51769	.49232	.49917	2.5188

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.712	.99264	20.266	.50791	.50077	5.0207	.51936	.98951	1.0075	-.01840	.98306	.96949	5.1066
Stddev	.218	.00595	.026	.00021	.00112	.0012	.00306	.00006	.0055	.00134	.00575	.00621	.0149
%RSD	.43856	.59938	.12677	.04063	.22315	.02452	.59012	.00601	.55032	7.3099	.58488	.64044	.29228

#1	49.558	.98843	20.248	.50805	.50156	5.0199	.52153	.98946	1.0114	-.01935	.98713	.97388	5.1172
#2	49.866	.99684	20.284	.50776	.49998	5.0216	.51720	.98955	1.0036	-.01744	.97899	.96510	5.0961

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.928	1.0100	.49027	-.00492	.49854	1.0239	-.03747	.50341	.52254	.50250
Stddev	.032	.0063	.00198	.00113	.00100	.0055	.03533	.00422	.00157	.00119
%RSD	.29228	.62045	.40363	23.068	.20019	.53748	94.280	.83791	.30083	.23606

#1	10.951	1.0144	.48887	-.00411	.49925	1.0278	-.06245	.50043	.52365	.50166
#2	10.906	1.0056	.49167	-.00572	.49784	1.0200	-.01249	.50639	.52143	.50334

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3309.2	55080.	6859.3
Stddev	16.1	80.	23.5
%RSD	.48614	.14613	.34302

#1	3297.8	55023.	6842.7
#2	3320.6	55137.	6876.0

Sample Name: ICB Acquired: 6/1/2015 11:08:32 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0048	-0.0040	-0.0139	-0.0071	.00007	-0.00003	-0.00140	.00294	.00016	.00024	.00000
Stddev	.00003	.00032	.00234	.00006	.00005	.00009	.00029	.00309	.00027	.00011	.0001
%RSD	6.4034	78.680	168.24	8.8934	74.456	304.96	20.541	105.24	170.68	45.467	4769.8

#1	-0.00050	-0.00063	-0.00304	-0.00067	.00011	-0.00009	-0.00120	.00075	-0.00003	.00031	-0.00006
#2	-0.00046	-0.00018	.00026	-0.00075	.00003	.00003	-0.00161	.00512	.00035	.00016	.00005

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00152	.00095	.09364	.00055	.00491	.00009	-0.00006	-0.01163	-0.00036	-0.00731	.00082
Stddev	.00013	.00006	.00973	.00059	.00299	.00010	.00019	.00404	.00029	.00295	.00183
%RSD	8.5380	5.9003	10.395	107.48	60.884	104.71	305.25	34.766	82.084	40.339	224.79

#1	.00143	.00099	.08675	.00013	.00703	.00002	.00007	-.00877	-.00015	-.00940	-.00048
#2	.00161	.00091	.10052	.00097	.00280	.00016	-.00019	-.01450	-.00057	-.00522	.00211

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.01823	-0.00100	F -.00514	.01477	.03161	-0.00255	.00004	-0.00190	-0.00035	.00104	.01105
Stddev	.00344	.00105	.00476	.01229	.02631	.00030	.00002	.00064	.00022	.00075	.01415
%RSD	18.887	104.39	92.509	83.211	83.211	11.631	61.367	33.905	63.855	72.346	128.02

#1	-.02066	-.00026	-.00850	.00608	.01301	-.00276	.00006	-.00145	-.00019	.00158	.00105
#2	-.01579	-.00175	-.00178	.02346	.05021	-.00234	.00002	-.00236	-.00050	.00051	.02106

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass							
High Limit			.00500								
Low Limit			-.00500								

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	-0.00034	-0.00093	-0.00337
Stddev	.00001	.00081	.00071
%RSD	3.1820	87.572	20.941

#1	-.00035	-.00150	-.00387
#2	-.00033	-.00035	-.00287

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3367.7	56422.	6878.9
Stddev	.4	92.	21.0
%RSD	.01046	.16355	.30533

#1	3368.0	56487.	6864.0
#2	3367.5	56357.	6893.7

Sample Name: CRI-3302204 Acquired: 6/1/2015 11:11:23 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01097	.10457	.00921	.09494	.00508	.00082	.10303	.21841	.00497	.00510	.00977
Stddev	.00082	.00037	.00541	.00135	.00038	.00003	.00139	.00583	.00001	.00016	.00050
%RSD	7.4998	.35062	58.691	1.4269	7.4646	3.4946	1.3477	2.6711	.18833	3.2096	5.0884

#1	.01155	.10483	.00539	.09398	.00481	.00080	.10401	.21429	.00498	.00498	.00942
#2	.01039	.10431	.01304	.09589	.00535	.00084	.10205	.22254	.00497	.00521	.01012

Check ?	Chk Pass										
Value											
Range											

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01108	.03284	1.1326	.01186	.20335	.00347	.00965	.99397	.01033	.93420	W .00168
Stddev	.00052	.00251	.0306	.00052	.00291	.00005	.00011	.02275	.00059	.01056	.00015
%RSD	4.6610	7.6514	2.7019	4.3985	1.4309	1.5408	1.1361	2.2892	5.7375	1.1306	8.8954

#1	.01072	.03106	1.1110	.01149	.20541	.00350	.00957	.97788	.00991	.92673	.00157
#2	.01145	.03461	1.1543	.01223	.20129	.00343	.00972	1.0101	.01075	.94167	.00178

Check ?	Chk Pass	Chk Warn									
Value											.00300
Range											-20.490%

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .07949	.00943	W .00519	.51454	1.1011	.01734	.00502	F .02751	.00935	W .01236	.06428
Stddev	.00218	.00133	.00310	.00536	.0115	.00050	.00005	.00353	.00055	.00039	.02832
%RSD	2.7470	14.139	59.708	1.0409	1.0409	2.8612	.94285	12.820	5.8471	3.1500	44.047

#1	.07795	.00848	.00300	.51832	1.1092	.01699	.00498	.03001	.00896	.01209	.04426
#2	.08104	.01037	.00738	.51075	1.0930	.01769	.00505	.02502	.00973	.01264	.08431

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Warn	Chk Pass
Value	.10000		.01000					.01000		.01000	
Range	-20.490%		-20.490%					50.000%		20.490%	

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00860	.01182	W .00770
Stddev	.00005	.00034	.00034
%RSD	.62573	2.8574	4.4084

#1	.00856	.01158	.00794
#2	.00863	.01206	.00746

Check ?	Chk Pass	Chk Pass	Chk Warn
Value			.01000
Range			-20.490%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3392.0	56458.	6864.1
Stddev	8.8	484.	53.3
%RSD	.26018	.85811	.77698

#1	3398.2	56115.	6826.4
#2	3385.7	56801.	6901.8

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0008	518.22	.00071	W -0.00775	.00027	-0.00007	-0.00382	471.28	-0.00070	.00044	W .00362
Stddev	.00026	1.15	.00201	.00023	.00001	.00005	.00509	1.03	.00007	.00030	.00024
%RSD	312.08	.22225	283.06	2.9892	4.0627	73.196	133.25	.21863	9.5925	66.535	6.5294

#1	.00010	517.40	.00213	-.00791	.00026	-.00003	-.00022	470.55	-.00065	.00065	.00345
#2	-.00027	519.03	-.00071	-.00759	.00028	-.00010	-.00743	472.01	-.00074	.00024	.00379

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn					
High Limit				.00700							.00186
Low Limit				-.00700							-.00186

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00156	181.76	.10410	W .00629	510.42	W .00122	-0.00579	.03346	W .00917	-0.01192	W .00758
Stddev	.00037	.28	.02541	.00013	6.84	.00002	.00019	.00329	.00018	.00206	.00121
%RSD	23.638	.15301	24.411	2.1457	1.3399	1.2595	3.3402	9.8335	1.9947	17.321	15.971

#1	.00182	181.56	.12207	.00619	515.26	.00121	-.00592	.03113	.00930	-.01338	.00672
#2	.00130	181.95	.08613	.00638	505.59	.00124	-.00565	.03578	.00904	-.01046	.00843

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn
High Limit				.00522		.00050			.00258		.00500
Low Limit				-.00522		-.00050			-.00258		-.00500

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.11497	W -.01130	.00255	W .01164	.02490	.00036	W .00451	W .01551	W -.00118	-0.00752	-.13980
Stddev	.00217	.00554	.00125	.00277	.00592	.00214	.00020	.00055	.00009	.00358	.00982
%RSD	1.8865	48.981	49.015	23.764	23.764	590.45	4.4681	3.5286	7.6633	47.649	7.0239

#1	-.11651	-.01522	.00343	.01359	.02909	-.00115	.00465	.01589	-.00124	-.01005	-.13285
#2	-.11344	-.00739	.00166	.00968	.02072	.00187	.00436	.01512	-.00111	-.00499	-.14674

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Warn	None	Chk Pass	Chk Warn	Chk Warn	Chk Warn	Chk Pass	Chk Pass
High Limit		.00628		.00694			.00050	.00800	.00100		
Low Limit		-.00628		-.06940			-.00050	-.00800	-.00100		

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	W .00229	.00135	W -.00612
Stddev	.00009	.00124	.00067
%RSD	4.0339	92.347	11.003

#1	.00236	.00222	-.00660
#2	.00223	.00047	-.00564

Check ?	Chk Warn	Chk Pass	Chk Warn
High Limit	.00222		.00476
Low Limit	-.00222		-.00476

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2990.5	49736.	6710.1
Stddev	.1	46.	43.0
%RSD	.00497	.09174	.64062

#1	2990.6	49769.	6740.5
#2	2990.3	49704.	6679.7

Sample Name: ICSAB-3290308 Acquired: 6/1/2015 11:19:00 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0582	511.58	1.9231	1.8881	.49455	.47545	.95069	461.74	1.0092	.45525	.42072	.51138	179.45
Stddev	.0043	.28	.0043	.0000	.00022	.00002	.00005	.56	.0000	.00016	.00102	.00540	.01
%RSD	.40602	.05493	.22118	.00010	.04405	.00380	.00555	.12178	.00226	.03491	.24228	1.0553	.00650

#1	1.0552	511.78	1.9201	1.8881	.49470	.47544	.95066	461.34	1.0092	.45536	.42144	.50756	179.45
#2	1.0613	511.38	1.9261	1.8881	.49439	.47546	.95073	462.14	1.0092	.45513	.42000	.51520	179.44

Check ?	Chk Pass												
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.999	1.0113	500.39	.48636	.90679	49.584	.92302	1.9054	.90633	.90094	.94324	4.6505	10.579
Stddev	.017	.0002	5.82	.00143	.00150	.174	.00358	.0006	.00071	.00247	.00819	.0347	.001
%RSD	.03395	.01870	1.1635	.29327	.16575	.35190	.38818	.03092	.07845	.27461	.86859	.74526	.00935

#1	51.011	1.0112	504.51	.48737	.90785	49.461	.92555	1.9058	.90684	.90269	.94904	4.6750	10.579
#2	50.986	1.0115	496.28	.48535	.90573	49.707	.92049	1.9049	.90583	.89919	.93745	4.6260	10.578

Check ?	Chk Pass												
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.638	8.7463	.95196	2.0117	.95374	8.2620	-.14759	.50171	.93924	.89285
Stddev	.002	.0100	.00027	.0045	.00091	.0565	.06283	.00082	.00910	.00250
%RSD	.00935	.11402	.02886	.22460	.09576	.68386	42.570	.16413	.96875	.27945

#1	22.640	8.7534	.95177	2.0149	.95439	8.3019	-.10317	.50229	.94567	.89462
#2	22.637	8.7393	.95215	2.0085	.95310	8.2220	-.19202	.50112	.93281	.89109

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass					
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3025.3	50331.	6782.5
Stddev	5.6	284.	51.0
%RSD	.18432	.56515	.75129

#1	3021.4	50130.	6746.5
#2	3029.3	50532.	6818.6

Sample Name: LRA-3255707 Acquired: 6/1/2015 11:21:52 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00338	-.28082	9.4749	9.2702	11.789	-.00560	-.01175	.02614	1.9638	4.8265	9.3258	10.119	481.33
Stddev	.00027	.00114	.0169	.0293	.138	.00008	.00173	.00007	.0016	.0051	.0001	.004	1.24
%RSD	7.9057	.40727	.17856	.31562	1.1722	1.5148	14.760	.27146	.08348	.10478	.00094	.03557	.25838

#1	.00356	-.28001	9.4630	9.2495	11.887	-.00566	-.01297	.02619	1.9627	4.8229	9.3258	10.117	482.21
#2	.00319	-.28163	9.4869	9.2908	11.691	-.00554	-.01052	.02609	1.9650	4.8301	9.3259	10.122	480.45

Check ?	None	None	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01823	.00274	-.01753	9.6779	4.7439	-.03264	9.7427	-.00024	9.6463	-.04445	.01227	4.7817	47.424
Stddev	.05163	.00237	.00219	.0806	.0006	.00284	.0037	.00243	.0103	.00861	.00010	.0185	.032
%RSD	283.17	86.599	12.501	.83310	.01182	8.7085	.03759	1008.2	.10646	19.371	.81551	.38644	.06738

#1	.01827	.00106	-.01598	9.6209	4.7435	-.03063	9.7401	.00148	9.6390	-.05054	.01234	4.7948	47.401
#2	-.05474	.00441	-.01908	9.7350	4.7443	-.03465	9.7453	-.00196	9.6535	-.03836	.01219	4.7687	47.446

Check ?	None	None	None	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	None	None	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	101.49	.01980	9.5391	.05600	9.7139	4.9526	-.32079	9.6866	9.4590	-.01225
Stddev	.07	.00077	.3032	.00386	.0061	.0132	.01702	.0230	.0197	.00198
%RSD	.06738	3.8981	3.1788	6.8982	.06323	.26741	5.3054	.23746	.20780	16.192

#1	101.44	.02034	9.3247	.05327	9.7183	4.9620	-.33282	9.7028	9.4729	-.01365
#2	101.53	.01925	9.7536	.05873	9.7096	4.9433	-.30875	9.6703	9.4451	-.01084

Check ?	None	None	Chk Pass	None	Chk Pass	None	None	Chk Pass	Chk Pass	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3327.0	56332.	6993.3
Stddev	1.0	213.	7.4
%RSD	.03007	.37798	.10612

#1	3327.7	56182.	6988.0
#2	3326.3	56483.	6998.5

Sample Name: CCVH-3294468 Acquired: 6/1/2015 11:24:42 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00266	49.242	-0.00480	.01543	.00115	.00000	1.0064	.03221	-0.00001	-0.00026	.00078	.00079	49.756
Stddev	.00011	.002	.00202	.00149	.00015	.00012	.0002	.00227	.00008	.00026	.00014	.00041	.048
%RSD	4.1795	.00492	42.053	9.6867	13.010	13953.	.01844	7.0353	1096.6	101.25	18.568	52.733	.09626

#1	.00274	49.244	-0.00337	.01648	.00126	.00009	1.0066	.03061	-0.00006	-0.00007	.00068	.00108	49.789
#2	.00258	49.240	-0.00623	.01437	.00105	-0.00008	1.0063	.03382	.00005	-0.00044	.00088	.00049	49.722

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.16957	.00508	.04499	-0.00130	.00074	245.93	.00284	-0.00465	.00168	4.9328	-0.00714	-0.00007	.03059
Stddev	.04378	.00054	.00383	.00004	.00057	.22	.00036	.00166	.00098	.0541	.00011	.00132	.00813
%RSD	25.817	10.625	8.5070	3.0623	77.438	.08920	12.499	35.722	58.446	1.0967	1.5175	1798.2	26.589

#1	.20053	.00470	.04770	-0.00127	.00033	245.77	.00259	-0.00582	.00099	4.9710	-0.00721	-0.00101	.03634
#2	.13862	.00546	.04229	-0.00133	.00114	246.08	.00309	-0.00347	.00238	4.8945	-0.00706	.00086	.02484

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06546	-0.00387	.00065	4.9011	-0.01147	.00251	10.254	.00191	-0.00169	-1.2652
Stddev	.01741	.00056	.00016	.0007	.00004	.00096	.151	.00052	.00019	.00100
%RSD	26.589	14.463	24.222	.01340	.32093	38.285	1.4714	27.326	11.223	.79428

#1	.07777	-0.00426	.00076	4.9016	-0.01145	.00319	10.360	.00228	-0.00155	-1.2581
#2	.05315	-0.00347	.00054	4.9007	-0.01150	.00183	10.147	.00154	-0.00182	-1.2724

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3326.6	55935.	6992.3
Stddev	14.6	71.	18.3
%RSD	.43830	.12665	.26149

#1	3316.3	55885.	6979.3
#2	3336.9	55985.	7005.2

Sample Name: CCV-3296664 Acquired: 6/1/2015 11:27:24 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50134	.52089	.98653	.51014	.48991	.49017	.00033	5.0270	.49843	.51449	.49621	.49757	2.4985
Stddev	.00117	.00087	.00158	.00059	.00074	.00141	.00350	.0077	.00063	.00128	.00275	.00070	.0032
%RSD	.23404	.16742	.15993	.11530	.15138	.28795	1054.8	.15303	.12619	.24888	.55483	.13996	.12774

#1	.50051	.52151	.98764	.51056	.48939	.48917	.00281	5.0215	.49887	.51358	.49426	.49806	2.5007
#2	.50217	.52028	.98541	.50973	.49044	.49116	-.00215	5.0324	.49798	.51540	.49815	.49708	2.4962

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.596	.99452	20.141	.50348	.49707	4.9306	.51465	.99446	1.0046	-.01833	.98786	.97188	5.0787
Stddev	.139	.00018	.005	.00060	.00244	.0072	.00151	.00616	.0051	.00133	.00129	.00120	.0181
%RSD	.27937	.01846	.02535	.11912	.49175	.14675	.29297	.61948	.50674	7.2357	.13101	.12351	.35575

#1	49.498	.99465	20.144	.50390	.49534	4.9357	.51359	.99010	1.0010	-.01739	.98695	.97104	5.0659
#2	49.694	.99439	20.137	.50305	.49880	4.9255	.51572	.99881	1.0082	-.01927	.98878	.97273	5.0914

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.868	1.0076	.49017	-.00480	.49843	1.0167	-.00565	.50115	.50383	.49853
Stddev	.039	.0028	.00166	.00292	.00025	.0083	.01085	.00182	.00467	.00296
%RSD	.35575	.28175	.33813	60.868	.05078	.81367	192.24	.36325	.92653	.59308

#1	10.841	1.0056	.48900	-.00686	.49825	1.0109	.00203	.49986	.50713	.50062
#2	10.896	1.0096	.49134	-.00273	.49861	1.0226	-.01332	.50243	.50053	.49644

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3350.7	55992.	7031.9
Stddev	9.2	12.	27.3
%RSD	.27568	.02224	.38864

#1	3344.2	55983.	7012.6
#2	3357.3	56001.	7051.3

Sample Name: CCB Acquired: 6/1/2015 11:29:51 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00035	.00074	-.00203	.00682	.00016	-.00007	-.00024	.00151	.00006	-.00003	.00002
Stddev	.00056	.00093	.00250	.00019	.00018	.00004	.00039	.00153	.00028	.00014	.00017
%RSD	161.50	126.07	123.61	2.7653	114.01	54.774	159.04	101.45	434.32	496.44	776.27

#1	.00005	.00008	-.00380	.00696	.00029	-.00004	.00003	.00043	.00026	.00007	.00015
#2	-.00075	.00139	-.00026	.00669	.00003	-.00009	-.00052	.00260	-.00013	-.00012	-.00010

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00135	.00289	.17771	.00424	.00404	.00004	.00011	-.03790	-.00001	-.00800	.00046
Stddev	.00046	.00030	.02048	.00086	.00441	.00013	.00029	.00386	.00005	.00056	.00127
%RSD	34.174	10.483	11.525	20.376	108.92	298.03	263.62	10.173	476.59	6.9469	272.31

#1	.00103	.00267	.19220	.00363	.00093	.00013	.00032	-.04063	.00003	-.00840	.00136
#2	.00168	.00310	.16323	.00485	.00716	-.00005	-.00010	-.03518	-.00005	-.00761	-.00043

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01947	-.00010	F -.00596	.01678	.03590	-.00129	.00014	-.00164	.00003	.00119	.02351
Stddev	.00090	.00175	.00164	.00189	.00405	.00014	.00009	.00111	.00011	.00202	.00927
%RSD	4.6489	1733.3	27.483	11.288	11.288	10.980	60.623	67.367	360.93	169.33	39.415

#1	-.02011	-.00134	-.00480	.01812	.03877	-.00139	.00021	-.00086	-.00005	-.00024	.03007
#2	-.01883	.00114	-.00712	.01544	.03304	-.00119	.00008	-.00243	.00010	.00262	.01696

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass							
High Limit			.00500								
Low Limit			-.00500								

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	-.00055	-.00102	-.00187
Stddev	.00042	.00061	.00137
%RSD	75.746	60.437	73.671

#1	-.00084	-.00145	-.00284
#2	-.00026	-.00058	-.00089

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3399.2	57127.	7030.1
Stddev	13.7	366.	69.0
%RSD	.40363	.64075	.98111

#1	3389.5	57386.	6981.3
#2	3408.9	56868.	7078.8

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00931	.10916	.01610	.10463	.01055	.00092	.10794	.21903	.00511	.01041	.01043	.01638
Stddev	.00037	.00055	.00238	.00123	.00008	.00004	.00095	.00049	.00018	.00037	.00025	.00011
%RSD	3.9696	.50323	14.768	1.1728	.74354	4.2141	.88144	.22197	3.5644	3.5562	2.3947	.68740

#1	.00957	.10877	.01778	.10550	.01061	.00089	.10861	.21868	.00498	.01067	.01025	.01630
#2	.00905	.10955	.01442	.10376	.01049	.00094	.10727	.21937	.00524	.01015	.01061	.01646

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10096	3.3120	F .01544	.21927	.01085	.02017	1.0135	.04212	2.8950	.00976	-.01586	.00863
Stddev	.00065	.0807	.00041	.00597	.00035	.00043	.0040	.00014	.0279	.00103	.00310	.00496
%RSD	.64313	2.4367	2.6664	2.7238	3.1977	2.1260	.39675	.33295	.96470	10.574	19.523	57.515

#1	.10050	3.3691	.01573	.21505	.01061	.02047	1.0163	.04222	2.9147	.01049	-.01805	.00512
#2	.10142	3.2549	.01515	.22350	.01110	.01987	1.0106	.04202	2.8752	.00903	-.01367	.01214

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01180	.51212	1.0959	.09952	.01044	.01361	.00939	.01630	.06310	.00991	.02278	.01266
Stddev	.00112	.01250	.0268	.00071	.00004	.00014	.00017	.00179	.00879	.00006	.00111	.00014
%RSD	9.4769	2.4415	2.4415	.70926	.41495	1.0615	1.8331	10.951	13.923	.62395	4.8535	1.1059

#1	.01101	.52096	1.1149	.10002	.01047	.01351	.00927	.01504	.05689	.00986	.02199	.01256
#2	.01259	.50328	1.0770	.09902	.01041	.01371	.00951	.01756	.06932	.00995	.02356	.01276

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3398.1	56748.	7072.2
Stddev	19.1	680.	92.3
%RSD	.56195	1.1980	1.3049

#1	3384.6	57229.	7006.9
#2	3411.6	56268.	7137.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0069	.00803	-0.00270	.00947	.00115	-0.0010	-0.00009	W .12403	.00001
Stddev	.00017	.00029	.00071	.00042	.00038	.00007	.00243	.00088	.00013
%RSD	24.512	3.6567	26.440	4.4767	33.427	72.445	2808.7	.71121	1264.8

#1	-0.00057	.00782	-0.00321	.00977	.00087	-0.00005	.00163	.12340	-0.00008
#2	-0.00081	.00824	-0.00220	.00917	.00142	-0.00015	-0.00180	.12465	.00010

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								.10000	
Low Limit								-.10000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0051	.00006	.00506	W .05108	.21121	.00366	.01976	.00129	-0.00060
Stddev	.00035	.00015	.00051	.00052	.01091	.00012	.00363	.00002	.00025
%RSD	69.475	259.65	9.9819	1.0250	5.1666	3.3088	18.369	1.1839	42.429

#1	-0.00076	.00016	.00542	.05145	.20350	.00375	.02233	.00130	-0.00078
#2	-0.00026	-0.00005	.00470	.05071	.21893	.00357	.01720	.00128	-0.00042

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				.05000					
Low Limit				-.05000					

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	312.46	.00011	-0.00574	F .02134	-0.00855	-0.00403	-0.00350	.01235	.02643
Stddev	.32	.00014	.00144	.00050	.00005	.00236	.00135	.01326	.02837
%RSD	.10343	121.91	25.046	2.3287	.63086	58.429	38.643	107.37	107.37

#1	312.69	.00021	-0.00676	.02169	-0.00851	-0.00237	-0.00446	.00297	.00636
#2	312.23	.00002	-0.00472	.02099	-0.00859	-0.00570	-0.00255	.02172	.04649

Check ?	None	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit				.00900					
Low Limit				-.00300					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00077	.00054	-0.00190	-0.00036	.00061	-0.00653	-0.00160	.00303	-0.00374
Stddev	.00172	.00003	.00025	.00003	.00128	.00195	.00073	.00016	.00106
%RSD	222.54	6.3418	12.937	7.6364	210.27	29.884	45.946	5.2292	28.402

#1	-0.00199	.00056	-0.00208	-0.00034	.00152	-0.00515	-0.00211	.00314	-0.00299
#2	.00044	.00051	-0.00173	-0.00038	-0.00030	-0.00791	-0.00108	.00292	-0.00449

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3208.7	54019.	6997.5
Stddev	5.8	473.	29.3
%RSD	.18010	.87574	.41937

#1	3204.6	54353.	7018.3
#2	3212.8	53684.	6976.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.22014	W .42352	.82882	.21322	2.4734	.01037	.40581	10.431	.23385
Stddev	.00006	.00302	.00020	.00253	.0034	.00009	.00146	.004	.00133
%RSD	.02760	.71291	.02385	1.1862	.13949	.88830	.35933	.03529	.57066

#1	.22018	.42566	.82868	.21501	2.4710	.01044	.40684	10.428	.23479
#2	.22009	.42139	.82896	.21143	2.4759	.01031	.40477	10.433	.23290

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit		.43200							
Low Limit		1.7200							

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10308	F .97224	.46626	.22224	F 11.043	.21755	10.099	.10462	.21334
Stddev	.00149	.00132	.00217	.00466	.229	.00476	.011	.00030	.00168
%RSD	1.4415	.13617	.46538	2.0983	2.0699	2.1899	.10876	.28872	.78778

#1	.10413	.97130	.46780	.22554	11.204	.22092	10.091	.10441	.21453
#2	.10203	.97317	.46473	.21894	10.881	.21418	10.107	.10483	.21215

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.25200			11.000				
Low Limit		.16800			8.9000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 332.34	.10360	2.1362	1.1456	.41261	F .10804	.62603	2.1346	F 4.5680
Stddev	.28	.00111	.0222	.0096	.00223	.00362	.00071	.0134	.0288
%RSD	.08303	1.0673	1.0405	.83565	.54041	3.3540	.11360	.62933	.62933

#1	332.15	.10439	2.1519	1.1523	.41418	.11061	.62553	2.1441	4.5884
#2	332.54	.10282	2.1204	1.1388	.41103	.10548	.62653	2.1251	4.5477

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Fail	Chk Pass	Chk Pass	Chk Fail
High Limit	11.200					.10800			4.9220
Low Limit	9.1000					.08800			4.0200

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.40913	.20471	.20606	.21164	.39503	.42832	.10414	.54999	.09662
Stddev	.00488	.00013	.00067	.00046	.00781	.00049	.00151	.00391	.00374
%RSD	1.1939	.06332	.32345	.21639	1.9780	.11409	1.4548	.71147	3.8692

#1	.41259	.20462	.20559	.21196	.40056	.42867	.10521	.54722	.09926
#2	.40568	.20480	.20653	.21131	.38951	.42798	.10307	.55275	.09397

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3151.4	52601.	6676.9
Stddev	12.5	371.	25.4
%RSD	.39532	.70589	.38027

#1	3142.6	52864.	6659.0
#2	3160.2	52339.	6694.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0013	.01483	-0.00278	.00845	.39656	-0.0010	-0.00088	146.13	.00030
Stddev	.00027	.00027	.00275	.00007	.00329	.00001	.00023	1.02	.00017
%RSD	203.06	1.8424	99.073	.88262	.82851	8.0743	25.877	.69681	56.281

#1	.00006	.01464	-.00472	.00840	.39424	-.00011	-.00104	145.41	.00042
#2	-.00032	.01503	-.00083	.00850	.39888	-.00010	-.00072	146.85	.00018

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00052	.00068	.00485	.02852	.91359	.00764	4.3262	.15123	-.00244
Stddev	.00000	.00002	.00035	.00127	.01662	.00019	.0114	.00061	.00009
%RSD	.78514	3.6520	7.1967	4.4401	1.8196	2.4940	.26408	.40325	3.7281

#1	.00052	.00066	.00509	.02941	.90183	.00777	4.3181	.15080	-.00251
#2	.00051	.00070	.00460	.02762	.92534	.00750	4.3343	.15166	-.00238

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	315.35	.00825	.00422	.05271	.91880	.00460	-.00260	.86413	1.8492
Stddev	2.10	.00027	.00470	.00163	.01063	.00008	.00173	.03959	.0847
%RSD	.66740	3.3269	111.41	3.0880	1.1574	1.6459	66.678	4.5811	4.5811

#1	313.86	.00845	.00754	.05386	.91128	.00455	-.00382	.83613	1.7893
#2	316.84	.00806	.00090	.05156	.92632	.00466	-.00137	.89212	1.9091

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00077	.28143	.00003	-.00096	W -.01004	-.04044	-.00074	.00429	-.00260
Stddev	.00038	.00233	.00246	.00044	.00375	.01735	.00016	.00065	.00124
%RSD	49.679	.82962	7934.2	46.267	37.406	42.911	21.058	15.050	47.780

#1	-.00104	.27978	.00177	-.00127	-.00738	-.02817	-.00063	.00384	-.00348
#2	-.00050	.28309	-.00171	-.00064	-.01269	-.05271	-.00085	.00475	-.00172

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000				
Low Limit					-.01000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3134.0	52651.	6768.4
Stddev	4.9	82.	9.0
%RSD	.15545	.15548	.13286

#1	3130.6	52709.	6774.8
#2	3137.5	52593.	6762.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0040	.09898	.00162	.00829	.40337	-0.0011	.00017	107.22	.00074
Stddev	.00018	.00146	.00386	.00117	.00275	.00005	.00092	.39	.00002
%RSD	45.457	1.4738	238.03	14.077	.68163	42.412	540.84	.36785	2.6623

#1	-0.00052	.09795	.00435	.00746	.40143	-0.00007	-0.00048	106.94	.00075
#2	-0.00027	.10001	-.00111	.00911	.40532	-0.00014	.00082	107.50	.00073

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0043	.00088	.00492	.04084	.63532	.00622	2.9158	.00775	-0.0269
Stddev	.00019	.00016	.00009	.00008	.01464	.00089	.0059	.00001	.00003
%RSD	45.118	17.596	1.8119	.19940	2.3050	14.339	.20068	.19017	1.2382

#1	-0.00029	.00099	.00486	.04078	.64568	.00686	2.9117	.00774	-.00272
#2	-0.00057	.00077	.00499	.04090	.62497	.00559	2.9200	.00776	-.00267

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	313.23	.00411	.02124	.01092	.14229	.00161	-0.00137	1.1491	2.4590
Stddev	1.38	.00015	.00056	.00100	.00803	.00041	.00136	.0040	.0086
%RSD	.44155	3.5408	2.6158	9.1861	5.6419	25.484	99.324	.35099	.35099

#1	312.25	.00421	.02085	.01021	.14796	.00190	-0.00234	1.1462	2.4529
#2	314.20	.00400	.02164	.01163	.13661	.00132	-0.00041	1.1519	2.4651

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00005	.17513	-.00126	-.00036	-.00658	-.00227	-.00021	.01378	-.00267
Stddev	.00154	.00090	.00307	.00016	.00318	.02922	.00067	.00013	.00040
%RSD	3038.4	.51648	243.37	45.695	48.272	1287.7	322.18	.93847	14.816

#1	.00114	.17450	-.00343	-.00024	-.00883	-.02293	.00027	.01369	-.00239
#2	-.00104	.17577	.00091	-.00047	-.00433	.01839	-.00068	.01387	-.00295

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3127.1	52557.	6736.1
Stddev	3.4	75.	3.7
%RSD	.10995	.14254	.05533

#1	3129.5	52610.	6738.8
#2	3124.6	52505.	6733.5

Sample Name: 280-69513-A-6-H SD@5 Acquired: 6/1/2015 11:47:34 Type: Unk

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment: 279206 6010C (As) Q5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00067	.02183	.00033	.00186	.08434	-0.00013	-0.00142	21.898	-0.00001
Stddev	.00033	.00009	.00126	.00028	.00002	.00007	.00165	.001	.00003
%RSD	49.055	.41823	378.18	14.987	.02359	50.788	116.40	.00452	349.93

#1	-0.00044	.02177	.00123	.00206	.08433	-0.00017	-0.00025	21.898	-0.00003
#2	-0.00090	.02190	-0.00056	.00166	.08435	-0.00008	-0.00259	21.899	.00001

Check ? Chk Pass
High Limit
Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.00017	.00272	.09636	.26874	.00383	.62096	.00233	-0.00103
Stddev	.00027	.00024	.00041	.00066	.01786	.00007	.00161	.00002	.00036
%RSD	5261.0	143.58	15.032	.68536	6.6450	1.7388	.25971	1.0499	35.149

#1	-0.00019	.00033	.00243	.09590	.25612	.00387	.61982	.00231	-0.00129
#2	.00020	.00000	.00300	.09683	.28137	.00378	.62210	.00235	-0.00077

Check ? Chk Pass
High Limit
Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	65.019	.00184	-0.00256	.00392	.00795	-0.00405	W -.00539	.22367	.47865
Stddev	.112	.00027	.00105	.00006	.00115	.00063	.00337	.00869	.01860
%RSD	.17250	14.939	41.009	1.6493	14.470	15.675	62.439	3.8853	3.8853

#1	64.939	.00164	-0.00331	.00396	.00713	-0.00360	-0.00777	.21752	.46550
#2	65.098	.00203	-0.00182	.00387	.00876	-0.00449	-0.00301	.22981	.49180

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Warn Chk Pass Chk Pass
High Limit 5.0000
Low Limit -0.00500

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00386	.03645	-0.00165	-0.00054	-0.00201	.00122	-0.00060	.00372	-0.00262
Stddev	.00027	.00000	.00162	.00011	.00188	.01361	.00032	.00104	.00155
%RSD	7.0818	.00668	98.048	20.362	93.609	1115.9	53.553	27.940	59.029

#1	.00406	.03645	-0.00280	-0.00046	-0.00334	-0.00840	-0.00037	.00299	-0.00153
#2	.00367	.03645	-0.00051	-0.00062	-0.00068	.01084	-0.00082	.00446	-0.00372

Check ? Chk Pass
High Limit
Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3241.9	54738.	6721.4
Stddev	1.2	210.	8.4
%RSD	.03768	.38337	.12532

#1	3241.1	54590.	6715.5
#2	3242.8	54886.	6727.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .20896	.40598	.78648	.20120	2.6967	.00969	F .38908	110.16	.22208
Stddev	.00174	.00054	.00634	.00042	.0044	.00003	.00492	.24	.00010
%RSD	.83194	.13213	.80554	.20642	.16337	.33009	1.2639	.22175	.04602

#1	.20773	.40560	.79096	.20091	2.6936	.00972	.39256	109.99	.22215
#2	.21019	.40635	.78200	.20150	2.6998	.00967	.38560	110.33	.22201

Check ?	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass				
High Limit	.10000						.10000		
Low Limit	-.01000						-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09579	W .90981	.44629	.21935	10.760	.21003	12.068	.10425	.19942
Stddev	.00048	.00566	.00080	.00453	.231	.00076	.014	.00014	.00029
%RSD	.50610	.62261	.17947	2.0664	2.1458	.36192	.11716	.13576	.14609

#1	.09613	.91381	.44685	.21615	10.924	.20949	12.078	.10415	.19922
#2	.09544	.90580	.44572	.22256	10.597	.21057	12.058	.10435	.19963

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	305.41	.09971	W 2.0629	1.0564	.52885	.10567	.59006	3.1122	6.6601
Stddev	.23	.00004	.0023	.0028	.00669	.00040	.00083	.0672	.1439
%RSD	.07435	.04359	.11159	.26824	1.2647	.37909	.14002	2.1605	2.1605

#1	305.25	.09974	2.0646	1.0544	.52412	.10538	.58948	3.0647	6.5584
#2	305.57	.09968	2.0613	1.0584	.53358	.10595	.59065	3.1598	6.7619

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.38366	.35535	.19318	.19918	.35966	.41315	.09909	.51387	.09184
Stddev	.00115	.00040	.00160	.00050	.00183	.01798	.00073	.00545	.00147
%RSD	.29856	.11319	.82737	.24859	.51000	4.3513	.73759	1.0612	1.5967

#1	.38285	.35564	.19205	.19883	.36096	.42586	.09858	.51001	.09081
#2	.38447	.35507	.19431	.19953	.35837	.40044	.09961	.51773	.09288

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3142.5	53298.	6831.6
Stddev	24.1	154.	59.0
%RSD	.76584	.28830	.86335

#1	3159.5	53407.	6873.3
#2	3125.5	53190.	6789.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .19666	.39792	.74849	.19124	2.5673	.00919	F .36652	105.31	.20991
Stddev	.00087	.00107	.00496	.00042	.0052	.00018	.00091	.26	.00006
%RSD	.44428	.26906	.66232	.21701	.20267	2.0089	.24939	.25144	.02662

#1	.19604	.39867	.75200	.19094	2.5636	.00906	.36588	105.12	.20987
#2	.19727	.39716	.74498	.19153	2.5710	.00932	.36717	105.50	.20995

Check ?	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass				
High Limit	.10000						.10000		
Low Limit	-.01000						-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09125	W .85569	.42135	.21001	10.264	.19590	11.577	.09938	.18882
Stddev	.00004	.00052	.00040	.00250	.091	.00364	.026	.00058	.00013
%RSD	.03949	.06050	.09460	1.1891	.88913	1.8560	.22861	.58190	.06667

#1	.09123	.85605	.42163	.20824	10.200	.19333	11.558	.09897	.18873
#2	.09128	.85532	.42107	.21177	10.329	.19848	11.595	.09979	.18890

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	290.56	.09551	1.9491	1.0042	.50628	.10228	.55979	2.8988	6.2035
Stddev	.37	.00060	.0029	.0027	.01292	.00116	.00365	.0290	.0621
%RSD	.12694	.62698	.14653	.26931	2.5515	1.1307	.65148	1.0009	1.0009

#1	290.30	.09594	1.9511	1.0061	.51541	.10146	.55721	2.8783	6.1595
#2	290.82	.09509	1.9470	1.0023	.49715	.10310	.56237	2.9193	6.2474

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.36299	.33863	.18613	.18929	.34195	.37737	.09465	.49283	.08511
Stddev	.00121	.00078	.00283	.00070	.00106	.02205	.00032	.00233	.00247
%RSD	.33380	.23073	1.5209	.37230	.30859	5.8425	.34140	.47360	2.9063

#1	.36384	.33808	.18413	.18879	.34269	.39296	.09488	.49118	.08337
#2	.36213	.33918	.18813	.18979	.34120	.36178	.09442	.49448	.08686

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3111.8	52224.	6641.5
Stddev	13.1	189.	11.5
%RSD	.42042	.36249	.17314

#1	3102.5	52358.	6633.3
#2	3121.0	52090.	6649.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04979	1.0623	.19623	.10436	.49493	.04940	.00192	124.24	.05129
Stddev	.00031	.0037	.00159	.00116	.00012	.00003	.00087	.07	.00054
%RSD	.63065	.34624	.81097	1.1153	.02518	.05560	45.111	.05315	1.0601

#1	.04957	1.0649	.19510	.10519	.49484	.04938	.00254	124.19	.05167
#2	.05001	1.0597	.19735	.10354	.49502	.04942	.00131	124.28	.05090

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04804	.04481	.05480	1.0458	21.011	.10739	21.876	.05716	.04649
Stddev	.00013	.00014	.00017	.0055	.008	.00258	.022	.00014	.00068
%RSD	.27193	.31452	.31082	.52250	.04025	2.4025	.10007	.25187	1.4671

#1	.04794	.04491	.05492	1.0497	21.005	.10921	21.892	.05726	.04697
#2	.04813	.04471	.05468	1.0420	21.017	.10556	21.861	.05706	.04601

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	330.18	.05260	W 2.0865	.10475	.13441	.09726	.19730	6.0796	13.010
Stddev	.65	.00014	.0099	.00041	.00035	.00451	.00140	.0313	.067
%RSD	.19779	.26589	.47435	.39290	.26330	4.6405	.71028	.51476	.51476

#1	330.64	.05250	2.0935	.10446	.13466	.10045	.19830	6.1017	13.058
#2	329.72	.05270	2.0795	.10504	.13416	.09407	.19631	6.0575	12.963

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09654	.22121	.19933	.04892	.17647	.51229	.04984	.22429	.04122
Stddev	.00003	.00009	.00027	.00039	.00203	.02749	.00034	.00620	.00165
%RSD	.03371	.04216	.13465	.78924	1.1477	5.3658	.69122	2.7633	4.0097

#1	.09652	.22115	.19914	.04919	.17504	.49285	.05008	.22868	.04239
#2	.09656	.22128	.19952	.04864	.17790	.53172	.04960	.21991	.04005

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3090.6	52250.	6809.9
Stddev	17.1	116.	14.1
%RSD	.55347	.22193	.20675

#1	3102.7	52332.	6819.8
#2	3078.5	52168.	6799.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0114	.01003	-0.00207	.00934	.16820	-0.00006	-0.00019	1.3117	.00329
Stddev	.00046	.00115	.00079	.00010	.00154	.00003	.00102	.0064	.00018
%RSD	40.336	11.502	38.182	1.0934	.91321	49.488	543.91	.48478	5.4989

#1	-0.0147	.01085	-0.00262	.00941	.16929	-0.00008	-0.00091	1.3072	.00342
#2	-0.00082	.00922	-0.00151	.00927	.16712	-0.00004	.00054	1.3162	.00317

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00085	W .66170	.00714	.01475	.52153	.00447	.06340	.00368	.00090
Stddev	.00016	.01609	.00045	.00024	.00905	.00132	.00025	.00016	.00025
%RSD	18.443	2.4310	6.3602	1.6099	1.7362	29.540	.38666	4.2911	27.464

#1	.00096	.67307	.00682	.01458	.51513	.00541	.06323	.00357	.00108
#2	.00074	.65033	.00746	.01492	.52793	.00354	.06357	.00379	.00073

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	333.85	.00030	1.1617	.00247	.29279	.00487	-0.00209	.08484	.18155
Stddev	1.72	.00006	.0041	.00125	.00020	.00144	.00055	.00940	.02011
%RSD	.51594	20.478	.35297	50.548	.06938	29.673	26.113	11.077	11.077

#1	335.07	.00035	1.1646	.00159	.29293	.00589	-0.00171	.07819	.16733
#2	332.63	.00026	1.1588	.00335	.29264	.00385	-0.00248	.09148	.19577

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00709	2.1261	-0.00248	-0.00069	.00237	.02458	-0.00121	3.9561	-0.00228
Stddev	.00011	.0107	.00039	.00021	.00059	.00635	.00025	.0034	.00058
%RSD	1.5354	.50256	15.714	30.864	24.764	25.840	20.894	.08729	25.633

#1	.00716	2.1337	-0.00276	-0.00054	.00279	.02907	-0.00139	3.9585	-0.00186
#2	.00701	2.1186	-0.00221	-0.00085	.00196	.02009	-0.00103	3.9536	-0.00269

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3192.0	54080.	6841.2
Stddev	95.0	499.	69.0
%RSD	2.9756	.92203	1.0092

#1	3259.1	53728.	6792.4
#2	3124.8	54433.	6890.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0020	.04146	-0.00572	.00810	.15834	-0.00010	-0.00001	5.1961	.03750
Stddev	.00040	.00001	.00495	.00060	.00062	.00014	.00082	.0339	.00005
%RSD	205.32	.03008	86.604	7.4221	.39449	134.76	7635.1	.65199	.12342

#1	.00009	.04145	-.00922	.00853	.15790	-.00020	-.00059	5.2200	.03753
#2	-.00048	.04147	-.00222	.00768	.15878	.00000	.00057	5.1721	.03746

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	W .31150	.00926	.07213	.72542	.00613	.17451	.01400	-0.0069
Stddev	.00015	.00310	.00062	.00027	.01194	.00003	.00503	.00016	.00036
%RSD	134.46	.99522	6.7147	.37322	1.6466	.46234	2.8838	1.1632	51.694

#1	.00001	.31369	.00882	.07232	.73386	.00611	.17095	.01388	-.00095
#2	.00021	.30931	.00970	.07194	.71697	.00615	.17807	.01411	-.00044

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	322.28	.00128	.71230	.00901	.17479	-0.00145	-0.00499	.16317	.34919
Stddev	.85	.00000	.00771	.00015	.00452	.00182	.00873	.01247	.02669
%RSD	.26414	.00405	1.0830	1.6973	2.5881	125.70	175.07	7.6445	7.6445

#1	321.68	.00128	.71775	.00912	.17159	-.00016	.00119	.15435	.33031
#2	322.88	.00128	.70684	.00891	.17799	-.00273	-.01116	.17199	.36806

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00122	.94220	-0.00131	-0.00019	-0.00020	.00105	-0.00108	3.3553	-0.00505
Stddev	.00129	.00263	.00175	.00019	.00238	.01925	.00017	.0473	.00278
%RSD	105.96	.27955	133.79	101.50	1192.9	1833.6	15.597	1.4096	55.007

#1	.00213	.94034	-0.00007	-0.00005	.00148	-.01256	-.00120	3.3218	-.00309
#2	.00031	.94406	-.00255	-.00033	-.00188	.01466	-.00096	3.3887	-.00701

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3073.9	52025.	6500.4
Stddev	17.4	135.	88.2
%RSD	.56457	.26044	1.3563

#1	3086.2	52121.	6562.8
#2	3061.7	51929.	6438.1

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00315	49.486	-.00137	-.00173	.00080	.00007	.96678	.02706	-.00030	-.00039	.00072
Stddev	.00065	.142	.00054	.00076	.00014	.00006	.00615	.00066	.00001	.00007	.00002
%RSD	20.782	.28635	39.707	43.835	17.833	87.031	.63629	2.4550	2.8981	18.259	2.7015

#1	.00269	49.385	-.00176	-.00227	.00070	.00003	.96243	.02753	-.00029	-.00044	.00070
#2	.00361	49.586	-.00099	-.00120	.00090	.00011	.97113	.02659	-.00030	-.00034	.00073

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00062	49.389	.26750	.00572	.04954	-.00147	-.00112	247.70	.00320	-.00491	.00203
Stddev	.00012	.550	.03902	.00195	.00188	.00002	.00007	1.26	.00015	.00053	.00040
%RSD	19.109	1.1134	14.587	34.036	3.7896	1.0638	6.4417	.50810	4.6208	10.687	19.798

#1	.00070	49.778	.29510	.00710	.04822	-.00146	-.00117	246.81	.00310	-.00529	.00175
#2	.00054	49.000	.23991	.00434	.05087	-.00148	-.00107	248.59	.00331	-.00454	.00232

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.7282	-.00887	.00139	-.01231	-.02634	-.00424	.00046	4.9080	-.01295	.00503	10.080
Stddev	.0107	.00174	.00032	.00164	.00351	.00065	.00005	.0204	.00002	.00159	.004
%RSD	.22546	19.571	22.941	13.320	13.320	15.226	10.864	.41474	.12431	31.615	.04274

#1	4.7206	-.01010	.00161	-.01347	-.02882	-.00378	.00050	4.8936	-.01296	.00391	10.077
#2	4.7357	-.00765	.00116	-.01115	-.02386	-.00470	.00042	4.9224	-.01294	.00615	10.083

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	5.0000										
Range	-5.0000%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00247	-.00187	-.12720
Stddev	.00088	.00032	.00280
%RSD	35.466	17.304	2.2034

#1	.00309	-.00210	-.12522
#2	.00185	-.00164	-.12918

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3101.6	52267.	6471.0
Stddev	25.0	937.	38.3
%RSD	.80595	1.7926	.59189

#1	3119.3	52929.	6443.9
#2	3084.0	51604.	6498.1

Sample Name: CCV-3296664 Acquired: 6/1/2015 12:06:21 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49455	.51601	.96058	.47561	.48773	.49158	.00055	5.0610	.48399	.50513	.46542	.48328	2.5364
Stddev	.00126	.00114	.01117	.00801	.00309	.00276	.00150	.0057	.00252	.00438	.00510	.00040	.0038
%RSD	.25476	.22136	1.1631	1.6839	.63395	.56194	271.95	.11264	.52058	.86689	1.0949	.08356	.14822

#1	.49544	.51682	.96848	.48127	.48555	.48962	-.00051	5.0650	.48577	.50823	.46903	.48356	2.5337
#2	.49366	.51520	.95268	.46994	.48992	.49353	.00161	5.0570	.48221	.50203	.46182	.48299	2.5391

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.075	.99322	20.098	.50787	.48795	5.0839	.50667	.95161	.97317	-.02283	.93186	.91493	5.0644
Stddev	.307	.00253	.093	.00059	.00335	.0402	.00454	.00977	.01334	.00289	.01587	.01664	.0149
%RSD	.61226	.25501	.46344	.11701	.68685	.79027	.89683	1.0268	1.3706	12.670	1.7033	1.8191	.29421

#1	49.859	.99143	20.164	.50829	.49032	5.0555	.50988	.95852	.98260	-.02487	.94308	.92670	5.0749
#2	50.292	.99501	20.033	.50745	.48558	5.1123	.50346	.94470	.96374	-.02078	.92063	.90316	5.0539

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.838	.98164	.48769	-.00507	.50133	.96820	-.01511	.50715	.52546	.49071
Stddev	.032	.01070	.00329	.00232	.00523	.01218	.05339	.00192	.00319	.00180
%RSD	.29421	1.0897	.67496	45.821	1.0431	1.2577	353.29	.37931	.60729	.36665

#1	10.860	.98921	.48536	-.00343	.50503	.97681	-.05287	.50851	.52772	.48943
#2	10.815	.97408	.49002	-.00671	.49764	.95959	.02264	.50579	.52321	.49198

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3194.3	51984.	6259.2
Stddev	12.2	347.	40.0
%RSD	.38334	.66810	.63951

#1	3203.0	51739.	6230.9
#2	3185.7	52230.	6287.5

Sample Name: CCB Acquired: 6/1/2015 12:08:50 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00072	.000002	-.00212	-.00133	.00030	.00000	.00226	.00434	-.00010	-.00007	.00008
Stddev	.00018	.00030	.00354	.00050	.00000	.00002	.00022	.00383	.00013	.00014	.00007
%RSD	25.180	1586.9	167.27	37.601	.36006	2573.4	9.5175	88.330	141.85	204.74	85.123

#1	-.00085	.00023	-.00462	-.00168	.00030	-.00002	.00211	.00705	.00000	.00003	.00013
#2	-.00059	-.00019	.00039	-.00098	.00030	.00002	.00241	.00163	-.00019	-.00016	.00003

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00074	-.00011	.23998	.00280	.00270	.00007	-.00012	.05211	.00019	-.00731	-.00046
Stddev	.00040	.00312	.00974	.00093	.00525	.00009	.00005	.01032	.00026	.00038	.00005
%RSD	54.012	2822.0	4.0597	33.209	194.20	122.69	37.744	19.808	140.20	5.1651	10.138

#1	.00046	-.00232	.24687	.00214	-.00101	.00014	-.00009	.04481	.00038	-.00704	-.00050
#2	.00102	.00210	.23309	.00346	.00641	.00001	-.00015	.05941	.00000	-.00757	-.00043

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.02242	-.00183	F -.00737	-.00053	-.00114	-.00197	.00013	-.00025	-.00033	-.00016	-.00928
Stddev	.00510	.00026	.00335	.01945	.04162	.00090	.00010	.00008	.00017	.00001	.01387
%RSD	22.734	14.048	45.488	3648.9	3648.9	45.897	79.196	29.937	50.935	8.6004	149.49

#1	-.02602	-.00202	-.00974	.01322	.02829	-.00261	.00021	-.00030	-.00021	-.00015	.00053
#2	-.01881	-.00165	-.00500	-.01429	-.03057	-.00133	.00006	-.00020	-.00044	-.00017	-.01909

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass							
High Limit			.00500								
Low Limit			-.00500								

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	-.00017	-.00121	-.00459
Stddev	.00026	.00015	.00279
%RSD	155.64	12.705	60.697

#1	-.00035	-.00110	-.00262
#2	.00002	-.00132	-.00656

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3216.9	5344.1	6468.2
Stddev	1.3	184.	16.1
%RSD	.03896	.34410	.24952

#1	3217.8	53571.	6479.6
#2	3216.0	53311.	6456.8

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00983	.10820	.01290	.09525	.01046	.00094	.10258	.21478	.00479	.01062	.00980	.01560
Stddev	.00015	.00016	.00219	.00141	.00021	.00002	.00126	.00461	.00031	.00018	.00007	.00028
%RSD	1.5739	.14937	17.007	1.4855	1.9782	1.8475	1.2306	2.1459	6.5054	1.6789	.66614	1.7700

#1	.00972	.10832	.01446	.09425	.01031	.00092	.10169	.21152	.00457	.01049	.00985	.01540
#2	.00994	.10809	.01135	.09625	.01060	.00095	.10347	.21803	.00502	.01074	.00975	.01579

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10306	3.3391	.01251	.21873	.01084	.01927	1.0756	.04180	2.8059	.00997	-.02154	.00716
Stddev	.00114	.0030	.00134	.00423	.00013	.00053	.0251	.00075	.0368	.00121	.00202	.00160
%RSD	1.1033	.09070	10.675	1.9319	1.1906	2.7543	2.3344	1.8006	1.3111	12.177	9.3954	22.321

#1	.10226	3.3412	.01157	.22172	.01093	.01889	1.0579	.04127	2.7799	.01083	-.02010	.00829
#2	.10386	3.3369	.01346	.21575	.01075	.01964	1.0934	.04233	2.8320	.00911	-.02297	.00603

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .00928	.51878	1.1102	.09755	.01020	.01348	.00915	.01680	F .03048	.00921	.02341	.01101
Stddev	.00075	.01931	.0413	.00123	.00002	.00130	.00016	.00153	.00794	.00070	.00022	.00036
%RSD	8.1098	3.7216	3.7216	1.2579	.22876	9.6701	1.7179	9.0871	26.063	7.5605	.92566	3.2888

#1	.00875	.53243	1.1394	.09668	.01018	.01441	.00904	.01572	.03610	.00970	.02326	.01126
#2	.00981	.50513	1.0810	.09842	.01021	.01256	.00926	.01788	.02487	.00871	.02356	.01075

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass						
Value	.01500								.06000			
Range	-30.000%								-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3227.7	53695.	6455.1
Stddev	16.5	3.	71.3
%RSD	.51168	.00518	1.1041

#1	3239.4	53697.	6404.7
#2	3216.0	53693.	6505.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0118	.01594	-0.00218	.01174	.00140	-0.00012	.00063	F .23365	-0.00034
Stddev	.00041	.00030	.00319	.00032	.00017	.00011	.00059	.00618	.00010
%RSD	34.409	1.8570	146.06	2.7093	12.162	91.682	93.236	2.6455	29.143

#1	-.00147	.01573	-.00444	.01197	.00128	-.00019	.00022	.23802	-.00027
#2	-.00089	.01615	.00007	.01152	.00152	-.00004	.00105	.22928	-.00041

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit								.20000	
Low Limit								-.20000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	.00026	.00260	.02679	.22387	W .00552	.09178	.00088	.00005
Stddev	.00005	.00020	.00010	.00060	.01558	.00006	.00589	.00001	.00004
%RSD	55.139	75.324	3.8217	2.2300	6.9599	1.1466	6.4220	1.5912	88.129

#1	.00012	.00012	.00267	.02722	.23488	.00557	.08761	.00087	.00007
#2	.00005	.00040	.00253	.02637	.21285	.00548	.09594	.00089	.00002

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						.00500			
Low Limit						-.00500			

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.13617	.00053	.00383	.00079	-.01470	-.00312	-.00533	.08389	.17953
Stddev	.01698	.00006	.00075	.00051	.00087	.00038	.00015	.00942	.02016
%RSD	12.467	11.423	19.688	64.342	5.8888	12.118	2.8261	11.232	11.232

#1	.12417	.00048	.00329	.00115	-.01409	-.00285	-.00544	.07723	.16527
#2	.14818	.00057	.00436	.00043	-.01531	-.00339	-.00523	.09056	.19379

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00560	.00061	-.00160	.00010	-.00013	W .05008	-.00081	.00239	-.00319
Stddev	.00035	.00006	.00023	.00021	.00045	.02370	.00031	.00024	.00063
%RSD	6.3052	10.401	14.604	216.22	330.49	47.325	38.986	10.140	19.651

#1	.00585	.00066	-.00176	.00025	.00018	.03332	-.00103	.00221	-.00363
#2	.00535	.00057	-.00143	-.00005	-.00045	.06684	-.00059	.00256	-.00275

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						.05000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3276.7	54647.	6510.3
Stddev	11.9	159.	29.9
%RSD	.36371	.29040	.45937

#1	3285.1	54535.	6489.1
#2	3268.3	54759.	6531.4

Sample Name: 280-69335-A-1-A MDLV Acquired: 6/1/2015 12:17:15 Type: Unk

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment: 278175 SOIL 6010C (Sb)

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00534	.07557	.02245	.04717	.00455	.00112	.01826	.73349	.00115
Stddev	.00007	.00109	.00471	.00127	.00004	.00008	.00015	.00298	.00007
%RSD	1.2473	1.4393	20.957	2.7009	.93887	7.4134	.79752	.40651	5.9009

#1	.00530	.07480	.02578	.04627	.00458	.00118	.01815	.73560	.00120
#2	.00539	.07634	.01912	.04807	.00452	.00106	.01836	.73138	.00111

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00389	.00243	.00977	.16972	1.8892	.01543	.22852	.00475	.00871
Stddev	.00024	.00023	.00010	.00137	.0294	.00021	.01257	.00002	.00057
%RSD	6.1112	9.3223	1.0393	.80503	1.5578	1.3799	5.5017	.33892	6.5006

#1	.00372	.00227	.00970	.17069	1.8684	.01528	.21963	.00476	.00911
#2	.00406	.00259	.00985	.16876	1.9100	.01558	.23741	.00473	.00831

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.1670	.00514	.05990	.01009	.12234	.01183	.02277	.26357	.56404
Stddev	.0187	.00024	.00083	.00142	.00229	.00153	.00289	.00521	.01114
%RSD	.86135	4.7336	1.3932	14.125	1.8707	12.949	12.708	1.9758	1.9758

#1	2.1538	.00531	.06049	.00908	.12396	.01292	.02072	.25989	.55616
#2	2.1802	.00497	.05931	.01109	.12072	.01075	.02482	.26725	.57192

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04020	.00152	.01210	.00454	.02567	.00795	.00246	.01819	.00847
Stddev	.00044	.00011	.00146	.00029	.00015	.00340	.00006	.00039	.00190
%RSD	1.0854	7.4117	12.058	6.4550	.57567	42.728	2.5772	2.1347	22.421

#1	.04051	.00160	.01107	.00475	.02578	.01035	.00242	.01847	.00713
#2	.03989	.00144	.01313	.00433	.02557	.00555	.00251	.01792	.00982

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3232.1	54112.	6549.1
Stddev	3.2	37.	11.7
%RSD	.09895	.06818	.17872

#1	3234.3	54086.	6540.8
#2	3229.8	54138.	6557.3

Sample Name: 280-69335-A-2-A MDLV Acquired: 6/1/2015 12:19:56 Type: Unk

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment: 278175 SOIL 6010C (Sb)

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00557	.07907	.02173	.04621	.00416	.00107	.01948	.70566	.00136
Stddev	.00031	.00058	.00577	.00018	.00014	.00001	.00051	.01650	.00021
%RSD	5.6019	.72863	26.554	.38615	3.3277	1.3060	2.6155	2.3387	15.159

#1	.00535	.07948	.02581	.04634	.00406	.00108	.01984	.69399	.00150
#2	.00579	.07866	.01765	.04609	.00426	.00106	.01912	.71733	.00121

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00381	.00232	.01042	.17102	1.8011	.01531	.23157	.00455	.00896
Stddev	.00003	.00012	.00029	.00587	.0026	.00120	.00368	.00004	.00015
%RSD	.71576	5.2803	2.7766	3.4338	.14179	7.8404	1.5887	.78791	1.6496

#1	.00383	.00223	.01063	.16687	1.7993	.01446	.23418	.00453	.00906
#2	.00379	.00240	.01022	.17517	1.8029	.01616	.22897	.00458	.00886

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.1138	.00528	.06292	.00990	.11860	.01111	.02368	.25111	.53737
Stddev	.0517	.00016	.00024	.00149	.00086	.00035	.00080	.03131	.06700
%RSD	2.4452	3.1048	.37849	15.074	.72765	3.1495	3.3855	12.468	12.468

#1	2.0772	.00516	.06309	.01095	.11799	.01086	.02425	.22897	.49000
#2	2.1503	.00539	.06275	.00884	.11921	.01135	.02311	.27325	.58475

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04077	.00144	.01184	.00457	.02588	.00961	.00268	.01967	.00953
Stddev	.00008	.00007	.00088	.00003	.00073	.02306	.00008	.00041	.00045
%RSD	.19172	5.0550	7.4592	.67117	2.8297	240.02	3.0138	2.1056	4.7315

#1	.04071	.00139	.01247	.00459	.02640	.02592	.00274	.01938	.00985
#2	.04082	.00150	.01122	.00455	.02536	-.00670	.00262	.01996	.00921

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3194.6	53471.	6462.9
Stddev	2.0	117.	28.3
%RSD	.06272	.21800	.43725

#1	3193.2	53553.	6482.9
#2	3196.0	53388.	6442.9

Sample Name: 280-69335-A-3-A LOQV Acquired: 6/1/2015 12:22:36 Type: Unk

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment: 278175 SOIL 6010C (Sb)

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01444	.53364	.02429	.10633	.02089	.00469	.00181	1.2332	.00467
Stddev	.00008	.00060	.00219	.00011	.00038	.00007	.00042	.0010	.00017
%RSD	.52797	.11284	9.0363	.10724	1.8181	1.4888	22.971	.08040	3.6590

#1	.01438	.53407	.02274	.10641	.02116	.00474	.00151	1.2325	.00455
#2	.01449	.53322	.02584	.10625	.02062	.00464	.00210	1.2339	.00479

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01000	.03306	.05126	.81794	3.2147	.01775	.40302	.04632	.02332
Stddev	.00011	.00010	.00046	.00685	.0079	.00156	.00036	.00050	.00086
%RSD	1.0516	.29879	.90029	.83699	.24502	8.8010	.08970	1.0691	3.6680

#1	.00992	.03313	.05158	.81310	3.2091	.01664	.40328	.04597	.02392
#2	.01007	.03299	.05093	.82278	3.2203	.01885	.40277	.04667	.02271

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.9676	.04141	.48019	.00852	-.01713	.01866	.02349	1.0551	2.2579
Stddev	.0334	.00031	.00202	.00074	.00633	.00263	.00339	.0147	.0314
%RSD	.67173	.75602	.41983	8.7407	36.970	14.105	14.443	1.3914	1.3914

#1	4.9440	.04119	.48161	.00905	-.01265	.02052	.02589	1.0447	2.2357
#2	4.9912	.04163	.47876	.00799	-.02160	.01680	.02109	1.0655	2.2801

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10798	.01030	.14423	.00883	.03091	.00931	.01877	.08554	.02240
Stddev	.00008	.00003	.00098	.00008	.00272	.00140	.00105	.00015	.00061
%RSD	.07306	.33721	.67729	.93483	8.7913	15.080	5.6101	.17907	2.7448

#1	.10803	.01028	.14354	.00889	.02899	.00831	.01803	.08544	.02283
#2	.10792	.01033	.14492	.00877	.03283	.01030	.01952	.08565	.02196

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3201.9	53120.	6436.4
Stddev	1.5	231.	1.5
%RSD	.04740	.43404	.02403

#1	3200.9	53283.	6437.5
#2	3203.0	52957.	6435.3

Sample Name: 69723-D-1-E @5 Acquired: 6/1/2015 12:25:17 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: 5/29 Custom ID2: Custom ID3:
 Comment: 279392 6010B (Sb) 5x

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00038	.52225	-.00197	.00008	.34493	.00541	-.00613	25.374	.00013
Stddev	.00044	.00315	.00066	.00016	.00254	.00002	.00010	.145	.00015
%RSD	116.36	.60240	33.421	189.97	.73754	.34693	1.6421	.56986	111.58

#1	.00007	.52448	-.00151	.00020	.34313	.00543	-.00606	25.272	.00024
#2	.00070	.52003	-.00244	-.00003	.34673	.00540	-.00620	25.476	.00003

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00585	.00136	.01056	238.60	.74184	.00596	9.3303	.94954	-.00213
Stddev	.00009	.00002	.00003	1.47	.00322	.00219	.0345	.00222	.00040
%RSD	1.5142	1.4642	.25100	.61705	.43428	36.729	.37033	.23403	18.976

#1	.00578	.00137	.01058	237.56	.73957	.00441	9.3059	.94797	-.00185
#2	.00591	.00135	.01055	239.64	.74412	.00750	9.3547	.95111	-.00242

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.96352	.02122	.87122	.00378	2.2138	F -.02303	.00093	14.384	30.782
Stddev	.00881	.00000	.00195	.00096	.0018	.00192	.00181	.062	.132
%RSD	.91473	.01838	.22338	25.478	.08238	8.3368	195.12	.42902	.42902

#1	.96975	.02122	.86984	.00447	2.2125	-.02167	.00221	14.428	30.876
#2	.95728	.02122	.87259	.00310	2.2151	-.02438	-.00035	14.341	30.689

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass Chk Pass Chk Pass
 High Limit 50.000
 Low Limit -.02000

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00680	.06766	.03103	.02123	.00166	F -.14575	.00055	.01347	-.00585
Stddev	.00091	.00065	.00095	.00023	.00131	.01345	.00028	.00057	.00156
%RSD	13.436	.96101	3.0465	1.0768	78.765	9.2306	51.685	4.2531	26.689

#1	.00745	.06812	.03170	.02107	.00259	-.13624	.00035	.01388	-.00695
#2	.00616	.06720	.03036	.02139	.00074	-.15527	.00075	.01307	-.00475

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass Chk Pass Chk Pass
 High Limit 50.000
 Low Limit -.10000

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3142.0	52378.	6379.7
Stddev	1.3	115.	14.7
%RSD	.04127	.21917	.23080

#1	3142.9	52459.	6390.1
#2	3141.1	52297.	6369.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00017	.10735	-.00135	-.00250	.06960	.00108	-.00264	5.1875	-.00024
Stddev	.00075	.00034	.00026	.00018	.00055	.00006	.00193	.0722	.00013
%RSD	436.14	.31503	19.116	7.2266	.79384	5.1534	72.899	1.3927	53.951

#1	-.00036	.10711	-.00153	-.00237	.06999	.00104	-.00128	5.2386	-.00015
#2	.00070	.10759	-.00117	-.00263	.06921	.00112	-.00400	5.1364	-.00033

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00144	.00047	.00332	48.486	.32669	.00543	1.9192	.18995	-.00108
Stddev	.00007	.00015	.00076	.493	.04717	.00066	.0070	.00054	.00006
%RSD	4.9894	32.483	22.820	1.0172	14.440	12.088	.36424	.28433	5.3835

#1	.00149	.00058	.00278	48.835	.36005	.00496	1.9241	.19033	-.00113
#2	.00139	.00036	.00385	48.138	.29333	.00589	1.9142	.18957	-.00104

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.16197	.00457	.16110	.00032	.40194	-.00619	-.00291	2.8576	6.1153
Stddev	.00489	.00015	.00105	.00055	.00187	.00116	.00105	.0672	.1437
%RSD	3.0172	3.2638	.64929	170.78	.46518	18.764	35.965	2.3506	2.3506

#1	.16542	.00447	.16036	.00071	.40326	-.00537	-.00365	2.9051	6.2169
#2	.15851	.00468	.16184	-.00007	.40062	-.00701	-.00217	2.8101	6.0136

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00543	.01350	.00332	.00339	.00156	-.03626	-.00067	.00230	-.00443
Stddev	.00088	.00019	.00130	.00058	.00011	.02170	.00004	.00057	.00099
%RSD	16.241	1.3903	39.060	17.246	6.9617	59.835	6.3035	24.816	22.344

#1	.00606	.01364	.00240	.00380	.00149	-.02092	-.00064	.00270	-.00513
#2	.00481	.01337	.00424	.00297	.00164	-.05161	-.00069	.00190	-.00373

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3167.2	52612.	6306.5
Stddev	6.7	37.	18.1
%RSD	.21206	.06987	.28716

#1	3162.5	52586.	6319.3
#2	3172.0	52638.	6293.7

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01234	W 2.5365	W 3.0295	.22709	.22796	.88363	.01824	F .44345	41.970
Stddev	.00040	.0362	.0128	.00756	.00188	.00006	.00002	.00537	.075
%RSD	3.2078	1.4284	.42238	3.3290	.82442	.00672	.10341	1.2101	.17980

#1	.01262	2.5622	3.0204	.23244	.22929	.88367	.01825	.44724	42.024
#2	.01206	2.5109	3.0385	.22175	.22663	.88358	.01823	.43965	41.917

Check ?	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit		2.5000	500.00					.10000	
Low Limit		-.05000	3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02325	.12363	.04350	.07126	276.32	13.431	.26011	22.856	1.1928
Stddev	.00022	.00095	.00052	.00031	.07	.014	.00161	.037	.0030
%RSD	.92498	.76834	1.2049	.43247	.02671	.10576	.61713	.16295	.25511

#1	.02340	.12431	.04387	.07148	276.37	13.441	.25898	22.882	1.1949
#2	.02310	.12296	.04313	.07104	276.27	13.421	.26125	22.830	1.1906

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.23325	13.200	.13922	W 3.2537	.11825	2.9842	.08145	.44966	18.356
Stddev	.00328	.194	.00207	.0335	.00125	.0290	.00035	.00811	.029
%RSD	1.4063	1.4733	1.4873	1.0283	1.0574	.97169	.43496	1.8034	.15880

#1	.23557	13.063	.14068	3.2773	.11913	3.0047	.08120	.45540	18.335
#2	.23093	13.338	.13775	3.2300	.11736	2.9637	.08170	.44393	18.377

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				2.0000					
Low Limit				-1.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	39.282	.45950	.31657	.26086	.26023	.45472	.31087	.11970	.13692
Stddev	.062	.00665	.00001	.00009	.00186	.00838	.02482	.00000	.00034
%RSD	.15880	1.4473	.00264	.03458	.71591	1.8435	7.9831	.00415	.24681

#1	39.238	.46420	.31656	.26079	.26154	.46065	.32842	.11970	.13716
#2	39.326	.45480	.31658	.26092	.25891	.44879	.29332	.11971	.13668

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.11632
Stddev	.00323
%RSD	2.7788

#1	.11403
#2	.11860

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 69723-D-1-F MS @5 Acquired: 6/1/2015 12:30:35 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 279392 6010B (Sb) 5x

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	3134.7	52348.	6297.8
Stddev	8.7	22.	29.7
%RSD	.27692	.04184	.47217
#1	3128.5	52363.	6276.8
#2	3140.8	52332.	6318.8

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01146	2.3066	W 2.6535	.21158	.21446	.81282	.01676	F .41588	38.340
Stddev	.00044	.0203	.0290	.00600	.00137	.00234	.00011	.00070	.157
%RSD	3.8725	.87920	1.0936	2.8364	.63841	.28770	.68547	.16911	.40949

#1	.01114	2.3209	2.6329	.21582	.21543	.81447	.01668	.41638	38.451
#2	.01177	2.2922	2.6740	.20733	.21350	.81117	.01685	.41538	38.229

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00					.10000	
Low Limit			3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02156	.11593	.04098	.06678	249.60	12.816	.24429	21.149	1.0651
Stddev	.00020	.00041	.00013	.00071	.70	.093	.00107	.026	.0051
%RSD	.94327	.35006	.32308	1.0576	.28236	.72839	.43976	.12124	.48012

#1	.02170	.11622	.04108	.06628	250.09	12.882	.24505	21.131	1.0687
#2	.02141	.11564	.04089	.06728	249.10	12.750	.24353	21.168	1.0615

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.21801	12.156	.13165	W 3.0416	.11221	2.7604	.07821	.42127	17.589
Stddev	.00197	.191	.00102	.0132	.00165	.0191	.00424	.00076	.074
%RSD	.90289	1.5673	.77416	.43489	1.4684	.69146	5.4216	.18092	.42238

#1	.21940	12.021	.13237	3.0509	.11105	2.7739	.08121	.42181	17.641
#2	.21662	12.291	.13093	3.0322	.11338	2.7469	.07521	.42073	17.536

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				2.0000					
Low Limit				-1.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	37.640	.43312	.29215	.24125	.23818	.43015	.31118	.11089	.12924
Stddev	.159	.00171	.00079	.00239	.00074	.00285	.03254	.00011	.00090
%RSD	.42238	.39544	.27146	.99157	.31210	.66195	10.457	.09564	.69709

#1	37.753	.43433	.29271	.24294	.23871	.43217	.33419	.11081	.12988
#2	37.528	.43190	.29159	.23956	.23766	.42814	.28817	.11096	.12861

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.10589
Stddev	.00124
%RSD	1.1753

#1	.10501
#2	.10677

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 69723-D-1-G MSD @5 Acquired: 6/1/2015 12:33:06 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 279392 6010B (Sb) 5x

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	3148.6	52565.	6449.5
Stddev	2.7	436.	52.7
%RSD	.08701	.82986	.81741
#1	3146.6	52257.	6412.2
#2	3150.5	52873.	6486.8

Sample Name: CCVH-3294468 Acquired: 6/1/2015 12:35:37 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00265	49.729	-0.0086	-0.0117	.00087	.00001	.98218	.03639	-0.0008	-0.0029	.00095	.00064	49.230
Stddev	.00053	.023	.00273	.00005	.00012	.00007	.00370	.00292	.00022	.00017	.00033	.00033	.526
%RSD	19.837	.04705	319.15	4.2165	13.929	487.69	.37707	8.0154	280.30	57.310	34.551	51.958	1.0682

#1	.00228	49.746	.00108	-0.0114	.00096	.00006	.98480	.03845	-0.0023	-0.0018	.00072	.00088	49.602
#2	.00302	49.712	-0.0279	-0.0121	.00078	-0.00003	.97956	.03433	.00008	-0.00041	.00118	.00041	48.859

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.22396	.00545	.05376	-0.0150	-0.00073	248.63	.00253	.00093	.00161	4.8035	-0.00915	.00361	.03231
Stddev	.03364	.00018	.00284	.00012	.00025	.66	.00101	.00149	.00112	.0026	.00300	.00172	.01707
%RSD	15.022	3.2595	5.2741	7.9031	34.103	.26435	39.804	159.66	69.578	.05398	32.762	47.623	52.839

#1	.24775	.00557	.05176	-0.0141	-0.0091	249.10	.00182	-0.0012	.00241	4.8017	-0.01127	.00240	.02024
#2	.20017	.00532	.05577	-0.0158	-0.0056	248.17	.00324	.00199	.00082	4.8054	-0.00703	.00483	.04438

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06914	-0.00340	.00044	4.9475	-0.01264	.00335	10.293	.00183	-0.00083	-0.13200
Stddev	.03653	.00185	.00001	.0087	.00031	.00158	.007	.00008	.00026	.00305
%RSD	52.839	54.347	1.6286	.17555	2.4355	47.057	.06668	4.5430	31.243	2.3076

#1	.04331	-0.00209	.00045	4.9414	-0.01242	.00446	10.289	.00177	-0.00101	-0.12985
#2	.09497	-0.00471	.00044	4.9536	-0.01285	.00223	10.298	.00189	-0.00064	-0.13416

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3217.0	53340.	6542.6
Stddev	.3	450.	93.9
%RSD	.00810	.84280	1.4353

#1	3216.8	53022.	6476.2
#2	3217.2	53658.	6609.0

Sample Name: CCV-3296664 Acquired: 6/1/2015 12:38:13 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50371	.53217	.98362	.49617	.49908	.49840	-.00037	5.1473	.49812	.52000	.48724	.49916	2.5409
Stddev	.00234	.00336	.00004	.00094	.00119	.00060	.00361	.0092	.00315	.00282	.00261	.00112	.0132
%RSD	.46448	.63174	.00409	.18864	.23752	.12007	965.97	.17908	.63143	.54169	.53582	.22342	.52121

#1	.50537	.53455	.98359	.49551	.49992	.49797	-.00292	5.1408	.50034	.51801	.48540	.49838	2.5315
#2	.50206	.52980	.98365	.49684	.49824	.49882	.00218	5.1539	.49589	.52199	.48909	.49995	2.5502

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.675	1.0100	20.469	.51166	.50213	5.0436	.52125	.99878	1.0107	-.02466	.98170	.96821	5.1593
Stddev	.037	.0020	.021	.00087	.00190	.0052	.00182	.00305	.0024	.00163	.00462	.00576	.0111
%RSD	.07281	.20204	.10127	.17082	.37747	.10292	.34856	.30495	.23567	6.6098	.47094	.59470	.21433

#1	50.649	1.0114	20.484	.51228	.50079	5.0400	.51997	.99663	1.0090	-.02351	.98497	.97228	5.1671
#2	50.701	1.0085	20.455	.51104	.50347	5.0473	.52253	1.0009	1.0124	-.02581	.97843	.96414	5.1515

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.041	1.0145	.49833	-.00566	.50470	1.0205	-.01001	.51283	.52365	.50678
Stddev	.024	.0082	.00035	.00071	.00026	.0043	.00741	.00211	.00473	.00421
%RSD	.21433	.80850	.06965	12.564	.05124	.42279	74.037	.41061	.90413	.83074

#1	11.058	1.0087	.49809	-.00515	.50489	1.0236	-.01525	.51432	.52700	.50975
#2	11.024	1.0203	.49858	-.00616	.50452	1.0175	-.00477	.51134	.52031	.50380

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3256.7	54221.	6637.9
Stddev	2.7	12.	17.0
%RSD	.08166	.02168	.25536

#1	3254.9	54229.	6649.9
#2	3258.6	54213.	6625.9

Sample Name: CCB Acquired: 6/1/2015 12:40:42 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0069	-0.0035	-0.0174	-0.0099	.00034	-0.0005	.00180	.00142	-0.0017	.00008	-0.0003	.00174	.03834
Stddev	.00112	.00036	.00178	.00041	.00020	.00018	.00092	.00130	.00006	.00007	.00014	.00039	.00149
%RSD	161.43	103.58	101.81	41.726	58.960	337.00	51.311	91.813	36.635	85.013	400.79	22.405	3.8831
#1	.00010	-0.00009	-0.00300	-0.00070	.00020	-0.00018	.00245	.00050	-0.00013	.00013	-0.00013	.00202	.03939
#2	-0.00148	-0.00061	-0.00049	-0.00129	.00048	.00007	.00115	.00234	-0.00022	.00003	.00006	.00146	.03728

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.20539	.00244	.00382	.00121	.00006	-0.2597	.00007	-0.00926	.00049	-0.1776	-0.00264	-0.00458	.02474
Stddev	.02568	.00029	.00224	.00007	.00042	.01175	.00016	.00124	.00002	.00041	.00114	.00179	.01601
%RSD	12.501	11.760	58.756	5.6962	703.47	45.232	214.36	13.350	3.2205	2.3040	43.272	39.142	64.691
#1	.18723	.00264	.00223	.00126	.00035	-0.1766	.00018	-0.1013	.00050	-0.1747	-0.00344	-0.00331	.01342
#2	.22354	.00224	.00540	.00116	-0.00024	-0.3428	-0.00004	-0.00838	.00048	-0.1805	-0.00183	-0.00585	.03606

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05295	-0.00175	.00014	-0.00212	-0.00002	-0.00063	.02113	-0.00062	.00407	-0.00423
Stddev	.03425	.00063	.00000	.00205	.00007	.00182	.00928	.00049	.00009	.00067
%RSD	64.691	36.143	1.0046	97.028	375.17	290.59	43.916	78.972	2.2741	15.883
#1	.02873	-0.00220	.00014	-0.00066	-0.00007	.00066	.01457	-0.00096	.00401	-0.00471
#2	.07717	-0.00130	.00014	-0.00357	.00003	-0.00191	.02769	-0.00027	.00414	-0.00376

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3272.3	54795.	6548.1
Stddev	7.1	608.	22.9
%RSD	.21679	1.1105	.34930
#1	3277.3	55225.	6564.3
#2	3267.3	54365.	6532.0

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00952	.11007	.01384	.09567	.01050	.00099	.10259	.21875	.00494	.01066	.00991	.01676
Stddev	.00048	.00027	.00314	.00054	.00024	.00002	.00007	.00012	.00018	.00014	.00011	.00027
%RSD	5.0265	.24927	22.693	.56953	2.2759	2.0241	.06467	.05442	3.6129	1.3373	1.0907	1.5933

#1	.00985	.10988	.01606	.09529	.01033	.00100	.10264	.21866	.00507	.01056	.00998	.01695
#2	.00918	.11027	.01162	.09606	.01067	.00097	.10255	.21883	.00481	.01076	.00983	.01657

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10774	3.3423	F .01402	.22107	.01101	.01977	1.0190	.04244	2.8463	.00921	-.02189	.00735
Stddev	.00215	.0191	.00012	.00912	.00002	.00062	.0090	.00013	.0052	.00063	.00121	.00086
%RSD	1.9986	.57109	.85274	4.1240	.17250	3.1126	.88465	.31018	.18099	6.8809	5.5470	11.661

#1	.10926	3.3558	.01410	.22752	.01099	.02020	1.0253	.04235	2.8499	.00876	-.02275	.00795
#2	.10622	3.3288	.01393	.21462	.01102	.01933	1.0126	.04253	2.8426	.00965	-.02103	.00674

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .00937	.50912	1.0895	.09945	.01033	.01385	.00994	.01463	.06713	.00951	.02368	.01186
Stddev	.00318	.01104	.0236	.00006	.00022	.00049	.00015	.00135	.00517	.00045	.00041	.00199
%RSD	33.893	2.1692	2.1692	.06306	2.1786	3.5584	1.5357	9.2299	7.6944	4.6838	1.7518	16.765

#1	.00713	.50131	1.0728	.09940	.01048	.01350	.00983	.01558	.06348	.00920	.02339	.01326
#2	.01162	.51693	1.1062	.09949	.01017	.01419	.01004	.01367	.07078	.00983	.02397	.01045

Check ?	Chk Fail	Chk Pass										
Value	.01500											
Range	-30.000%											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3271.7	54631.	6639.0
Stddev	2.0	212.	6.4
%RSD	.06056	.38714	.09618

#1	3273.1	54781.	6643.5
#2	3270.3	54482.	6634.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0076	.00560	-0.00234	-0.00112	.00079	-0.00003	-0.00115	.01981	.00015
Stddev	.00010	.00028	.00376	.00053	.00009	.00003	.00021	.00130	.00009
%RSD	13.629	4.9875	160.29	47.123	10.781	96.072	18.628	6.5787	61.931

#1	-0.00069	.00540	-0.00500	-0.00149	.00085	-0.00005	-0.00100	.02074	.00008
#2	-0.00083	.00579	.00031	-0.00075	.00073	-0.00001	-0.00130	.01889	.00021

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00025	-0.00010	.00165	.01055	.18740	.00282	.00671	.00027	-0.00010
Stddev	.00007	.00009	.00009	.00163	.02932	.00255	.00059	.00003	.00008
%RSD	25.722	91.271	5.4394	15.495	15.645	90.298	8.7296	12.371	76.671

#1	.00021	-0.00017	.00159	.00939	.20813	.00102	.00630	.00025	-0.00005
#2	.00030	-0.00004	.00172	.01170	.16667	.00463	.00712	.00030	-0.00016

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.03096	-0.00005	-0.00878	-0.00030	-0.01756	.00132	-0.00373	.01779	.03808
Stddev	.00684	.00025	.00119	.00175	.00340	.00204	.00243	.01536	.03286
%RSD	22.080	551.22	13.494	575.71	19.342	154.03	65.164	86.309	86.309

#1	-0.02613	.00013	-0.00795	.00093	-0.01516	.00276	-0.00201	.00693	.01484
#2	-0.03580	-0.00023	-0.00962	-0.00154	-0.01996	-0.00012	-0.00545	.02865	.06132

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00160	.00016	-0.00161	-0.00026	.00073	.01710	-0.00042	.00119	-0.00322
Stddev	.00003	.00004	.00044	.00032	.00007	.00888	.00033	.00020	.00060
%RSD	2.0616	26.339	27.511	122.25	10.074	51.933	78.409	16.645	18.770

#1	-0.00158	.00013	-0.00129	-0.00004	.00068	.02338	-0.00019	.00105	-0.00364
#2	-0.00162	.00019	-0.00192	-0.00048	.00078	.01082	-0.00066	.00134	-0.00279

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3288.7	54949.	6661.6
Stddev	12.0	67.	3.2
%RSD	.36577	.12281	.04771

#1	3280.2	54997.	6663.9
#2	3297.2	54901.	6659.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04901	2.0042	.98214	.98549	2.0080	.04965	1.9359	50.155	.09878
Stddev	.00046	.0016	.00038	.00586	.0018	.00003	.0149	.025	.00032
%RSD	.93356	.07837	.03880	.59469	.08953	.07015	.77075	.04976	.32639

#1	.04869	2.0031	.98241	.98134	2.0067	.04963	1.9254	50.173	.09855
#2	.04933	2.0053	.98187	.98963	2.0093	.04968	1.9465	50.138	.09901

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50050	F .18518	.24947	.99990	51.378	1.0185	50.944	.50580	1.0291
Stddev	.00065	.00126	.00065	.00285	.022	.0012	.009	.00136	.0021
%RSD	.12933	.68216	.26203	.28486	.04262	.12218	.01835	.26926	.20260

#1	.50095	.18429	.24901	1.0019	51.393	1.0176	50.938	.50676	1.0306
#2	.50004	.18608	.24993	.99788	51.362	1.0194	50.951	.50484	1.0276

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.876	.50114	10.066	.49869	1.9466	.49575	1.9401	10.218	21.866
Stddev	.062	.00002	.044	.00116	.0054	.00276	.0084	.043	.092
%RSD	.11881	.00374	.43928	.23289	.27743	.55589	.43474	.42146	.42146

#1	51.833	.50115	10.034	.49787	1.9428	.49380	1.9341	10.248	21.932
#2	51.920	.50113	10.097	.49951	1.9504	.49770	1.9461	10.188	21.801

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9978	.99883	.99410	1.0068	1.9624	2.0520	.50506	.51330	.47864
Stddev	.0034	.00137	.00304	.0022	.0105	.0498	.00284	.00340	.00304
%RSD	.16855	.13762	.30553	.21742	.53690	2.4280	.56186	.66223	.63593

#1	2.0002	.99785	.99625	1.0084	1.9550	2.0168	.50707	.51570	.48079
#2	1.9954	.99980	.99195	1.0053	1.9699	2.0873	.50305	.51090	.47649

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3162.1	52852.	6614.7
Stddev	23.2	176.	52.5
%RSD	.73274	.33287	.79416

#1	3145.7	52728.	6577.5
#2	3178.5	52977.	6651.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0080	.15397	-0.0103	.04431	.19824	-0.0002	-0.00096	89.894	-0.0004
Stddev	.00007	.00192	.00342	.00035	.00112	.00001	.00077	.288	.00013
%RSD	8.5760	1.2486	331.27	.79126	.56360	70.415	80.352	.32001	319.14

#1	-0.0075	.15533	-0.00345	.04456	.19903	-0.00003	-0.00151	90.098	-0.0013
#2	-0.00085	.15261	.00139	.04406	.19745	-0.00001	-0.00042	89.691	.00005

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00018	.00338	.00259	.11202	1.2638	.02560	9.9332	.00990	-0.0142
Stddev	.00013	.00015	.00021	.00091	.0212	.00050	.0502	.00002	.00010
%RSD	72.849	4.5284	8.1653	.80969	1.6771	1.9410	.50500	.19784	7.3331

#1	.00009	.00327	.00274	.11266	1.2488	.02595	9.8978	.00989	-0.0149
#2	.00028	.00349	.00244	.11138	1.2788	.02524	9.9687	.00992	-0.0134

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	59.403	.00312	.00733	.00236	7.9070	-0.0182	-0.00306	12.675	27.124
Stddev	.061	.00001	.00322	.00204	.0447	.00180	.00159	.050	.106
%RSD	.10212	.36008	43.926	86.442	.56477	98.650	51.934	.39073	.39073

#1	59.446	.00312	.00505	.00380	7.9386	-0.00309	-0.00193	12.640	27.049
#2	59.360	.00311	.00960	.00092	7.8754	-0.00055	-0.00418	12.710	27.199

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00080	.72628	-0.00034	.00146	-0.00751	-0.01419	.00730	.00165	-0.00267
Stddev	.00023	.00173	.00159	.00008	.00037	.04655	.00016	.00008	.00098
%RSD	29.020	.23802	470.66	5.6986	4.9245	327.98	2.1439	4.8419	36.779

#1	.00063	.72750	.00078	.00140	-0.00777	-0.04711	.00741	.00159	-0.00337
#2	.00096	.72506	-0.00146	.00151	-0.00725	.01872	.00719	.00171	-0.00198

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3209.5	53404.	6594.9
Stddev	11.0	74.	19.8
%RSD	.34129	.13790	.30008

#1	3201.8	53352.	6580.9
#2	3217.3	53456.	6608.9

Sample Name: 280-69589-C-2-A SD@5 Acquired: 6/1/2015 12:58:38 Type: Unk

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment: 279404 6010C Q5 (Ca Fe K Na)

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00072	.03493	.00049	.00822	.04523	-0.00004	.00015	20.137	.00002
Stddev	.00027	.00071	.00397	.00066	.00019	.00006	.00255	.010	.00032
%RSD	38.330	2.0378	812.83	8.0444	.41244	163.31	1753.3	.05066	1937.1

#1	-0.00091	.03544	.00330	.00869	.04510	-0.00008	.00195	20.130	-0.00021
#2	-0.00052	.03443	-.00232	.00776	.04536	.00001	-.00166	20.144	.00024

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00008	.00069	.00215	.03260	.42704	.00723	2.2506	.00235	-0.00089
Stddev	.00011	.00008	.00043	.00149	.00877	.00006	.0009	.00003	.00013
%RSD	140.00	12.215	19.966	4.5603	2.0534	.86175	.04080	1.4534	14.562

#1	.00000	.00075	.00245	.03155	.42084	.00718	2.2513	.00233	-0.00079
#2	-0.00016	.00063	.00185	.03365	.43324	.00727	2.2500	.00238	-0.00098

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.179	.00160	-0.00526	.00094	1.6484	-0.00130	W -.00590	2.8775	6.1579
Stddev	.257	.00040	.00400	.00111	.0412	.00184	.00055	.0327	.0699
%RSD	1.9538	24.807	76.013	118.30	2.5017	141.85	9.3373	1.1355	1.1355

#1	12.996	.00132	-.00243	.00173	1.6776	.00000	-.00551	2.8544	6.1085
#2	13.361	.00188	-.00809	.00015	1.6192	-.00260	-.00629	2.9006	6.2073

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							5.0000		
Low Limit							-.00500		

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00518	.16275	.00015	-0.00009	-0.00199	-0.00323	.00128	.00049	-0.00418
Stddev	.00091	.00046	.00173	.00032	.00079	.00652	.00005	.00035	.00028
%RSD	17.479	.28234	1133.4	362.46	39.891	201.81	3.8900	70.992	6.7435

#1	.00582	.16243	-.00107	-.00031	-.00255	-.00785	.00132	.00074	-.00398
#2	.00454	.16308	.00138	.00014	-.00143	.00138	.00124	.00025	-.00438

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3254.8	53989.	6499.8
Stddev	.3	269.	4.7
%RSD	.01059	.49838	.07259

#1	3254.6	54180.	6496.5
#2	3255.1	53799.	6503.2

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05188	2.2104	W 2.5141	1.0111	1.0651	2.2524	.05124	F 2.0010	140.36
Stddev	.00024	.0032	.0200	.0068	.0014	.0006	.00007	.0042	.13
%RSD	.45344	.14386	.79396	.67367	.13419	.02555	.12863	.21077	.09554

#1	.05171	2.2127	2.5000	1.0063	1.0641	2.2528	.05129	2.0039	140.46
#2	.05205	2.2082	2.5282	1.0159	1.0661	2.2520	.05119	1.9980	140.27

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00					.10000	
Low Limit			3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10205	.50509	W .18922	.26162	1.1840	54.274	1.0700	61.037	.52121
Stddev	.00048	.00233	.00148	.00017	.0061	.065	.0031	.049	.00149
%RSD	.46768	.46195	.78105	.06550	.51283	.12037	.28738	.08085	.28622

#1	.10238	.50674	.19026	.26174	1.1797	54.320	1.0721	61.072	.52227
#2	.10171	.50344	.18817	.26150	1.1883	54.228	1.0678	61.002	.52016

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.10000						
Low Limit			-.01000						

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0550	112.82	.51017	W 10.566	.50129	10.096	.51658	2.0197	23.540
Stddev	.0038	1.01	.00271	.021	.00333	.049	.00822	.0202	.019
%RSD	.35856	.89877	.53078	.19721	.66529	.48230	1.5904	1.0007	.07889

#1	1.0577	113.53	.51208	10.581	.50365	10.130	.52239	2.0340	23.526
#2	1.0524	112.10	.50825	10.551	.49893	10.061	.51077	2.0054	23.553

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				2.0000					
Low Limit				-1.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.375	W 2.0335	1.7559	1.0262	1.0345	1.9628	2.1089	.52448	.51461
Stddev	.040	.0252	.0001	.0002	.0028	.0165	.0346	.00089	.00222
%RSD	.07889	1.2394	.00755	.01755	.26869	.84072	1.6413	.17035	.43131

#1	50.347	2.0513	1.7560	1.0263	1.0365	1.9745	2.1334	.52511	.51618
#2	50.403	2.0157	1.7558	1.0261	1.0325	1.9512	2.0844	.52385	.51304

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		2.0000							
Low Limit		-.05000							

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.49885
Stddev	.00057
%RSD	.11353

#1	.49845
#2	.49925

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69589-C-2-B MS Acquired: 6/1/2015 13:01:19 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 279404 6010C Q5 (Ca Fe K Na)

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	3123.4	52601.	6565.5
Stddev	3.2	305.	31.5
%RSD	.10114	.58051	.48007
#1	3125.6	52385.	6543.2
#2	3121.2	52817.	6587.7

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04905	2.1319	W 2.4100	.97761	1.0226	2.1563	.04901	F 1.9221	135.50
Stddev	.00020	.0074	.0168	.00188	.0012	.0040	.00024	.0013	.28
%RSD	.41588	.34643	.69812	.19180	.11795	.18396	.49413	.06862	.20976

#1	.04919	2.1371	2.4219	.97628	1.0234	2.1535	.04884	1.9212	135.30
#2	.04890	2.1267	2.3982	.97893	1.0217	2.1591	.04918	1.9230	135.70

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00					.10000	
Low Limit			3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09807	.48602	W .18277	.24785	1.0898	51.892	1.0254	58.619	.50142
Stddev	.00016	.00216	.00133	.00285	.0043	.191	.0052	.232	.00112
%RSD	.16224	.44391	.72996	1.1496	.39710	.36774	.50980	.39610	.22399

#1	.09795	.48755	.18183	.24583	1.0868	51.757	1.0217	58.455	.50221
#2	.09818	.48450	.18371	.24986	1.0929	52.027	1.0291	58.784	.50062

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.10000						
Low Limit			-.01000						

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0163	107.65	.48733	W 10.100	.48308	9.7833	.49775	1.9437	22.824
Stddev	.0017	.04	.00198	.030	.00073	.0134	.00018	.0127	.059
%RSD	.16468	.03374	.40681	.29991	.15089	.13743	.03628	.65219	.25785

#1	1.0174	107.62	.48873	10.121	.48359	9.7738	.49762	1.9347	22.782
#2	1.0151	107.67	.48593	10.078	.48256	9.7928	.49788	1.9527	22.865

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				2.0000					
Low Limit				-1.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.842	1.9626	1.6910	.98465	.99446	1.8910	2.0433	.50565	.49575
Stddev	.126	.0038	.0030	.00537	.00005	.0048	.0219	.00083	.00007
%RSD	.25785	.19488	.17669	.54487	.00498	.25249	1.0717	.16334	.01508

#1	48.753	1.9653	1.6889	.98844	.99450	1.8877	2.0278	.50623	.49569
#2	48.932	1.9599	1.6932	.98085	.99443	1.8944	2.0588	.50507	.49580

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.47242
Stddev	.00350
%RSD	.74077

#1	.46995
#2	.47490

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69589-C-2-C MSD Acquired: 6/1/2015 13:03:44 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 279404 6010C Q5 (Ca Fe K Na)

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	3123.8	52592.	6596.4
Stddev	14.9	422.	2.6
%RSD	.47638	.80175	.03981
#1	3113.3	52294.	6594.5
#2	3134.3	52890.	6598.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04847	1.1452	.19601	.14286	.29350	.04986	.00239	107.68	.05074
Stddev	.00018	.0005	.00033	.00005	.00121	.00063	.00066	.61	.00002
%RSD	.37372	.04646	.16634	.03315	.41190	1.2676	27.707	.57028	.03075

#1	.04860	1.1448	.19578	.14283	.29265	.04941	.00192	107.24	.05075
#2	.04835	1.1456	.19624	.14289	.29436	.05030	.00286	108.11	.05073

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05012	.04970	.05153	1.0874	21.423	.12519	29.375	.05947	.04853
Stddev	.00006	.00050	.00017	.0217	.126	.00062	.024	.00021	.00015
%RSD	.10994	1.0030	.32431	1.9962	.58611	.49750	.07999	.35552	.31292

#1	.05008	.04935	.05165	1.0721	21.334	.12475	29.392	.05962	.04864
#2	.05016	.05005	.05141	1.1028	21.512	.12563	29.358	.05932	.04842

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	80.352	.05304	W 2.0476	.10139	7.9655	.09714	.19059	17.812	38.119
Stddev	1.093	.00026	.0045	.00024	.0042	.00357	.00090	.296	.634
%RSD	1.3598	.48970	.21817	.24151	.05298	3.6759	.47419	1.6634	1.6634

#1	79.580	.05323	2.0508	.10122	7.9626	.09966	.18995	17.603	37.670
#2	81.125	.05286	2.0445	.10157	7.9685	.09461	.19123	18.022	38.567

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09885	.76324	.20003	.05157	.19502	.48364	.05831	.21361	.04169
Stddev	.00242	.00347	.00188	.00055	.00618	.00146	.00094	.00376	.00039
%RSD	2.4475	.45507	.94192	1.0724	3.1704	.30248	1.6144	1.7596	.92536

#1	.09714	.76079	.20137	.05196	.19939	.48260	.05897	.21627	.04142
#2	.10056	.76570	.19870	.05118	.19065	.48467	.05764	.21096	.04197

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3146.1	52667.	6569.6
Stddev	4.1	114.	87.3
%RSD	.12933	.21715	1.3290

#1	3143.3	52586.	6631.3
#2	3149.0	52748.	6507.8

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00246	49.749	.00026	.00043	.00083	-.00004	.99127	.04191	-.00032	-.00052	.00082	.00098	50.153
Stddev	.00001	.111	.00545	.00032	.00021	.00003	.00541	.00485	.00017	.00002	.00012	.00007	.233
%RSD	.53071	.22286	2098.9	75.336	25.059	76.324	.54620	11.565	53.473	3.6551	14.284	7.3373	.46415

#1	.00247	49.670	-.00360	.00065	.00069	-.00002	.98744	.04534	-.00020	-.00053	.00090	.00093	49.988
#2	.00245	49.827	.00411	.00020	.00098	-.00007	.99510	.03849	-.00044	-.00050	.00074	.00103	50.317

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.23760	.00330	.04870	-.00148	-.00083	251.83	.00264	-.00451	.00121	4.8665	-.00741	.00390	-.00556
Stddev	.02507	.00026	.00292	.00001	.00035	1.25	.00036	.00158	.00013	.0284	.00004	.00098	.00561
%RSD	10.551	7.8622	6.0038	.93230	42.076	.49570	13.454	34.924	10.433	.58265	.56513	25.040	100.77

#1	.21987	.00348	.05077	-.00149	-.00108	250.95	.00239	-.00340	.00112	4.8464	-.00744	.00321	-.00160
#2	.25532	.00312	.04664	-.00147	-.00059	252.71	.00289	-.00563	.00130	4.8865	-.00738	.00459	-.00953

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01191	-.00363	.00045	4.9537	-.01288	.00318	10.331	.00237	-.00007	-.12419
Stddev	.01200	.00010	.00014	.0109	.00017	.00114	.104	.00081	.00005	.00183
%RSD	100.77	2.7919	30.046	.21927	1.2876	35.913	1.0089	33.985	60.482	1.4707

#1	-.00342	-.00370	.00036	4.9460	-.01277	.00399	10.404	.00294	-.00004	-.12549
#2	-.02039	-.00355	.00055	4.9614	-.01300	.00237	10.257	.00180	-.00011	-.12290

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3203.5	53543.	6623.6
Stddev	1.2	128.	.4
%RSD	.03826	.23984	.00629

#1	3202.6	53633.	6623.3
#2	3204.4	53452.	6623.9

Sample Name: CCV-3296664 Acquired: 6/1/2015 13:11:20 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49816	.53022	.98318	.49115	.50279	.50067	.00045	5.1705	.49217	.52430	.48801	.49632	2.5405
Stddev	.00569	.00122	.00520	.00337	.00206	.00184	.00065	.0227	.00173	.00121	.00037	.00904	.0070
%RSD	1.1422	.22992	.52909	.68712	.40907	.36710	142.71	.43805	.35169	.23109	.07572	1.8210	.27425

#1	.50218	.53108	.98686	.49354	.50133	.49937	.00091	5.1545	.49340	.52344	.48775	.50271	2.5356
#2	.49413	.52936	.97950	.48877	.50424	.50197	.00000	5.1865	.49095	.52515	.48827	.48993	2.5455

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.024	1.0235	20.404	.50923	.50676	5.1191	.52632	.99220	1.0152	-.02235	.97588	.96472	5.1764
Stddev	.120	.0008	.155	.00029	.00207	.0132	.00123	.00290	.0034	.00142	.00400	.00265	.0364
%RSD	.23544	.07678	.75758	.05628	.40901	.25826	.23456	.29224	.33021	6.3326	.40971	.27456	.70340

#1	50.940	1.0229	20.513	.50903	.50529	5.1098	.52545	.99015	1.0128	-.02335	.97871	.96659	5.1507
#2	51.109	1.0240	20.295	.50944	.50822	5.1285	.52720	.99425	1.0175	-.02135	.97305	.96285	5.2022

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.078	1.0170	.50112	-.00453	.50648	1.0218	-.02756	.50920	.52496	.50966
Stddev	.078	.0004	.00212	.00185	.00633	.0001	.02032	.00027	.00804	.00563
%RSD	.70340	.04107	.42322	40.915	1.2494	.01452	73.730	.05235	1.5314	1.1042

#1	11.023	1.0173	.49962	-.00322	.51096	1.0219	-.04193	.50902	.51928	.50568
#2	11.133	1.0167	.50262	-.00584	.50201	1.0217	-.01319	.50939	.53065	.51364

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3228.3	53780.	6597.0
Stddev	1.3	355.	58.1
%RSD	.04181	.65970	.88066

#1	3229.2	54031.	6638.1
#2	3227.3	53529.	6555.9

Sample Name: CCB Acquired: 6/1/2015 13:13:50 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0064	-0.0036	-0.0034	-0.0074	.00022	-0.0001	.00040	.00677	-0.0007	.00025	-0.0006	.00188	.00065
Stddev	.00035	.00016	.00142	.00027	.00043	.00009	.00253	.00076	.00004	.00004	.00041	.00056	.00187
%RSD	54.561	44.672	42.683	36.599	195.82	881.68	625.93	11.190	59.954	15.199	706.21	29.967	288.76

#1	-0.0040	-0.0025	-0.00434	-0.0055	.00052	.00005	.00219	.00623	-0.0004	.00023	.00023	.00228	-0.0067
#2	-0.0089	-0.0048	-0.00233	-0.0093	-0.0008	-0.0007	-0.0138	.00731	-0.0011	.00028	-0.0035	.00148	.00197

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.17719	.00341	.00287	.00004	-0.00023	-0.00807	.00028	-0.00648	.00014	-0.02284	-0.00014	-0.00443	.01671
Stddev	.01608	.00027	.00024	.00004	.00023	.00347	.00009	.00197	.00000	.00002	.00058	.00641	.00795
%RSD	9.0756	7.7798	8.4433	93.740	101.10	43.028	30.794	30.359	2.8467	.09815	409.33	144.62	47.551

#1	.18856	.00360	.00270	.00007	-0.0006	-0.01053	.00022	-0.00787	.00014	-0.02286	.00027	.00010	.02233
#2	.16582	.00322	.00304	.00001	-0.00039	-0.00562	.00034	-0.00509	.00014	-0.02283	-0.00055	-0.00896	.01109

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03576	-0.0164	.00010	-0.00222	-0.00052	-0.00001	.01903	-0.00110	-0.00052	-0.00359
Stddev	.01701	.00052	.00001	.00226	.00014	.00153	.02383	.00011	.00008	.00142
%RSD	47.551	31.525	5.3037	101.39	26.128	11320.	125.20	9.7393	16.208	39.445

#1	.04779	-0.0128	.00010	-0.00382	-0.00062	.00107	.03588	-0.00118	-0.00058	-0.00259
#2	.02374	-0.00201	.00011	-0.00063	-0.00043	-0.00109	.00218	-0.00103	-0.00046	-0.00459

Check ?	Chk Pass									
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3289.3	55403.	6535.4
Stddev	8.1	89.	31.0
%RSD	.24658	.16012	.47396

#1	3295.0	55465.	6513.5
#2	3283.6	55340.	6557.4

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00933	.11057	.01197	.09742	.01085	.00097	.10362	.22475	.00526	.01120	.01024	.01732
Stddev	.00057	.00018	.00056	.00115	.00015	.00003	.00132	.00360	.00005	.00061	.00009	.00051
%RSD	6.1136	.15908	4.6754	1.1779	1.3751	2.9761	1.2717	1.5999	.85566	5.4727	.91916	2.9655

#1	.00973	.11070	.01236	.09823	.01074	.00099	.10455	.22221	.00523	.01077	.01030	.01696
#2	.00892	.11045	.01157	.09661	.01096	.00095	.10269	.22729	.00530	.01163	.01017	.01768

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10757	3.4682	.01261	.22027	.01074	.01917	1.0854	.04306	2.8577	.00960	-.02052	.00951
Stddev	.00064	.0219	.00102	.00055	.00000	.00004	.0312	.00096	.0079	.00117	.00071	.00160
%RSD	.59700	.63195	8.1230	.25039	.03251	.19357	2.8781	2.2353	.27774	12.173	3.4621	16.877

#1	.10712	3.4527	.01334	.21988	.01074	.01919	1.0633	.04374	2.8633	.01042	-.02103	.00837
#2	.10802	3.4837	.01189	.22066	.01073	.01914	1.1075	.04238	2.8521	.00877	-.02002	.01064

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F.00941	.52387	1.1211	.10090	.01080	.01385	.00960	.01608	.06990	.00984	.02323	.01139
Stddev	.00121	.00863	.0185	.00071	.00020	.00081	.00019	.00022	.00765	.00008	.00076	.00024
%RSD	12.813	1.6468	1.6468	.69878	1.8172	5.8464	1.9809	1.3472	10.943	.85419	3.2826	2.0882

#1	.00856	.52997	1.1341	.10040	.01066	.01328	.00946	.01593	.07531	.00978	.02269	.01122
#2	.01026	.51777	1.1080	.10140	.01094	.01442	.00973	.01624	.06449	.00990	.02377	.01156

Check ?	Chk Fail	Chk Pass										
Value	.01500											
Range	-30.000%											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3293.9	55061.	6595.5
Stddev	.9	400.	87.1
%RSD	.02730	.72667	1.3202

#1	3294.5	54778.	6534.0
#2	3293.3	55344.	6657.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0097	.00285	-0.00273	-0.00037	.00008	-0.00004	-0.00331	.01791	-0.00001
Stddev	.00069	.00006	.00200	.00021	.00004	.00000	.00169	.00217	.00004
%RSD	70.912	2.1047	73.071	57.896	43.151	11.222	51.150	12.128	476.34

#1	-0.0146	.00281	-0.00415	-0.00022	.00006	-0.00004	-0.00451	.01944	-0.00004
#2	-0.00049	.00290	-0.00132	-0.00052	.00011	-0.00004	-0.00211	.01637	.00002

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0017	.00010	.00134	.00448	.13848	.00345	.00460	.00016	-0.0027
Stddev	.00047	.00005	.00033	.00234	.00830	.00173	.00284	.00008	.00003
%RSD	272.57	48.261	24.849	52.160	5.9958	50.157	61.750	48.736	9.8257

#1	.00016	.00014	.00157	.00283	.13261	.00468	.00259	.00010	-0.00026
#2	-0.00051	.00007	.00110	.00613	.14435	.00223	.00661	.00021	-0.00029

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.02507	-0.00045	-0.00593	-0.00137	-0.02112	-0.00280	-0.00403	.00947	.02027
Stddev	.00633	.00075	.00055	.00086	.00067	.00112	.00298	.00392	.00840
%RSD	25.252	168.87	9.3154	62.718	3.1865	39.960	73.845	41.421	41.421

#1	-0.02954	.00009	-0.00554	-0.00076	-0.02160	-0.00201	-0.00193	.00670	.01433
#2	-0.02059	-0.00098	-0.00632	-0.00197	-0.02065	-0.00359	-0.00613	.01225	.02621

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00037	.00015	-0.00162	-0.00041	.00118	.00454	-0.00037	-0.00001	-0.00370
Stddev	.00002	.00011	.00150	.00017	.00122	.01990	.00026	.00010	.00211
%RSD	5.6628	76.866	92.738	40.958	103.68	438.12	69.172	654.82	57.053

#1	-0.00035	.00007	-0.00269	-0.00029	.00204	.01862	-0.00055	-0.00008	-0.00221
#2	-0.00038	.00022	-0.00056	-0.00053	.00031	-0.00953	-0.00019	.00005	-0.00519

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3323.5	55657.	6672.9
Stddev	7.3	226.	12.6
%RSD	.22021	.40558	.18933

#1	3318.3	55816.	6663.9
#2	3328.7	55497.	6681.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04926	2.0201	.99631	.99295	2.0700	.05092	1.9746	51.595	.10008
Stddev	.00025	.0001	.00194	.00183	.0032	.00014	.0054	.180	.00034
%RSD	.50153	.00284	.19425	.18409	.15384	.26930	.27486	.34887	.34293

#1	.04909	2.0201	.99494	.99165	2.0723	.05102	1.9707	51.722	.10033
#2	.04944	2.0201	.99768	.99424	2.0678	.05082	1.9784	51.468	.09984

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50944	F .19036	.25575	1.0237	52.789	1.0481	51.827	.50872	1.0484
Stddev	.00045	.00047	.00063	.0119	.135	.0019	.042	.00069	.0032
%RSD	.08801	.24679	.24645	1.1588	.25586	.18417	.08076	.13634	.30120

#1	.50912	.19003	.25530	1.0321	52.885	1.0495	51.857	.50921	1.0506
#2	.50975	.19069	.25619	1.0153	52.694	1.0468	51.798	.50822	1.0461

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	53.306	.50973	10.164	.50814	1.9950	.50587	2.0004	10.537	22.549
Stddev	.205	.00059	.008	.00026	.0136	.00224	.0246	.029	.063
%RSD	.38377	.11561	.08273	.05050	.68112	.44330	1.2279	.27972	.27972

#1	53.451	.51014	10.170	.50832	1.9854	.50429	1.9830	10.558	22.593
#2	53.161	.50931	10.158	.50796	2.0046	.50746	2.0178	10.516	22.504

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0487	1.0271	1.0108	1.0143	2.0273	2.0992	.50802	.51274	.50025
Stddev	.0245	.0022	.0024	.0025	.0206	.0002	.00364	.00613	.00550
%RSD	1.1954	.21184	.23267	.24566	1.0165	.00766	.71667	1.1955	1.0989

#1	2.0314	1.0286	1.0091	1.0160	2.0127	2.0991	.51060	.51708	.50414
#2	2.0660	1.0255	1.0124	1.0125	2.0419	2.0994	.50545	.50841	.49637

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3189.9	53503.	6579.2
Stddev	.6	81.	62.9
%RSD	.01813	.15058	.95580

#1	3189.5	53560.	6534.7
#2	3190.3	53446.	6623.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05079	2.0406	1.0092	1.0060	2.1126	.05224	2.0052	52.734	.10138
Stddev	.00037	.0072	.0038	.0040	.0005	.00004	.0084	.113	.00030
%RSD	.72914	.35154	.37798	.40149	.02541	.06869	.42143	.21335	.29626

#1	.05053	2.0355	1.0065	1.0032	2.1130	.05226	1.9992	52.814	.10117
#2	.05105	2.0457	1.0119	1.0089	2.1122	.05221	2.0112	52.655	.10159

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51940	F .19297	.26335	1.0387	53.786	1.0681	52.855	.51530	1.0682
Stddev	.00011	.00020	.00032	.0063	.005	.0002	.020	.00117	.0024
%RSD	.02139	.10350	.12340	.61123	.01008	.01540	.03780	.22727	.22804

#1	.51932	.19312	.26358	1.0342	53.782	1.0680	52.869	.51447	1.0665
#2	.51948	.19283	.26312	1.0432	53.790	1.0682	52.841	.51613	1.0699

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	54.232	.51841	10.244	.51858	2.0411	.51356	2.0351	10.680	22.855
Stddev	1.196	.00026	.047	.00306	.0110	.00515	.0229	.154	.330
%RSD	2.2053	.05073	.45631	.59029	.53973	1.0037	1.1265	1.4451	1.4451

#1	53.387	.51860	10.211	.51641	2.0334	.50992	2.0189	10.571	22.621
#2	55.078	.51822	10.277	.52074	2.0489	.51721	2.0513	10.789	23.088

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0894	1.0470	1.0260	1.0297	2.0610	2.1326	.51377	.52143	.50907
Stddev	.0207	.0000	.0014	.0011	.0206	.0297	.00009	.00311	.00710
%RSD	.98904	.00242	.13818	.11010	.99995	1.3918	.01770	.59567	1.3942

#1	2.0748	1.0470	1.0250	1.0305	2.0465	2.1116	.51371	.51923	.50405
#2	2.1041	1.0470	1.0270	1.0289	2.0756	2.1536	.51384	.52362	.51409

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3194.7	53654.	6519.1
Stddev	8.1	97.	70.6
%RSD	.25294	.18059	1.0827

#1	3200.4	53722.	6469.2
#2	3189.0	53585.	6569.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0041	.00312	-0.00304	.00154	.00079	-0.00005	.00078	.03764	-0.00003
Stddev	.00010	.00009	.00189	.00044	.00025	.00002	.00331	.00265	.00001
%RSD	25.561	2.7380	62.222	28.583	31.350	32.099	422.51	7.0383	31.358

#1	-0.0048	.00306	-0.00437	.00185	.00096	-0.00006	.00312	.03577	-0.00004
#2	-0.00033	.00319	-0.00170	.00123	.00061	-0.00004	-0.00156	.03951	-0.00002

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00008	.00025	.02472	.00966	.22061	.00244	.00828	.00061	.00026
Stddev	.00036	.00012	.00035	.00111	.06159	.00015	.00189	.00001	.00026
%RSD	447.57	45.796	1.4097	11.465	27.920	6.2646	22.786	.91286	99.605

#1	.00018	.00034	.02448	.00888	.26416	.00255	.00961	.00060	.00044
#2	-0.00034	.00017	.02497	.01045	.17706	.00234	.00694	.00061	.00008

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00254	.00040	-0.00669	.00071	-0.01322	-0.00180	-0.00457	.15960	.34155
Stddev	.00089	.00015	.00287	.00067	.00171	.00123	.00235	.00206	.00442
%RSD	35.149	37.105	42.836	93.592	12.932	68.513	51.539	1.2933	1.2933

#1	-0.00317	.00030	-0.00872	.00119	-0.01443	-0.00267	-0.00290	.16106	.34467
#2	-0.00191	.00051	-0.00466	.00024	-0.01201	-0.00093	-0.00623	.15814	.33843

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00172	.00021	-0.00223	-0.00011	-0.00098	.01296	-0.00104	.00379	-0.00254
Stddev	.00017	.00009	.00181	.00001	.00038	.01021	.00029	.00053	.00001
%RSD	10.004	43.052	80.924	5.9661	38.668	78.744	27.766	13.949	.25550

#1	-0.00184	.00015	-0.00351	-0.00012	-0.00125	.02018	-0.00083	.00416	-0.00254
#2	-0.00160	.00028	-0.00095	-0.00011	-0.00071	.00575	-0.00124	.00341	-0.00254

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3324.5	55759.	6590.2
Stddev	3.1	348.	3.1
%RSD	.09463	.62443	.04776

#1	3322.3	55512.	6587.9
#2	3326.7	56005.	6592.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0063	.00010	-0.00409	.00009	.00050	-0.00005	-0.00150	.01075	.00016
Stddev	.00003	.00013	.00001	.00039	.00008	.00006	.00011	.00219	.00018
%RSD	4.8081	139.68	.23258	429.84	15.095	117.12	7.2914	20.403	116.96

#1	-0.0061	.00019	-0.00409	.00036	.00055	-0.00009	-0.00157	.00920	.00029
#2	-0.0065	.00000	-0.00410	-0.00018	.00045	-0.00001	-0.00142	.01230	.00003

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00021	-0.00008	.00680	.00709	.13356	.00331	-0.00407	.00026	.00018
Stddev	.00017	.00042	.00022	.00117	.04460	.00006	.00297	.00005	.00025
%RSD	81.016	513.69	3.1858	16.511	33.394	1.8598	73.110	20.412	134.00

#1	.00032	.00022	.00696	.00791	.10202	.00335	-0.00196	.00030	.00036
#2	.00009	-0.00038	.00665	.00626	.16510	.00327	-0.00617	.00023	.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00024	.00046	-0.00918	.00108	-0.01816	-0.00276	-0.00338	.04244	.09083
Stddev	.00529	.00017	.00051	.00189	.00167	.00151	.00318	.00313	.00670
%RSD	2236.4	36.316	5.5018	175.00	9.1803	54.579	94.118	7.3802	7.3802

#1	-0.00350	.00034	-0.00954	.00242	-0.01698	-0.00169	-0.00563	.04023	.08609
#2	.00398	.00058	-0.00883	-0.00026	-0.01934	-0.00382	-0.00113	.04466	.09557

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00377	.00015	.00007	-0.00053	-0.00029	-0.01884	-0.00063	.00036	-0.00391
Stddev	.00015	.00000	.00136	.00005	.00136	.00240	.00023	.00029	.00228
%RSD	4.0526	2.0612	2081.4	9.0822	472.92	12.725	37.501	78.924	58.228

#1	.00388	.00015	.00103	-0.00056	-0.00125	-0.01714	-0.00079	.00056	-0.00552
#2	.00366	.00014	-0.00090	-0.00049	.00068	-0.02053	-0.00046	.00016	-0.00230

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3290.6	55318.	6591.8
Stddev	6.8	100.	83.6
%RSD	.20714	.18095	1.2682

#1	3285.8	55388.	6650.9
#2	3295.4	55247.	6532.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04873	1.0314	.19317	.09857	.10338	.05052	-.00066	20.151	.05041
Stddev	.00004	.0007	.00151	.00000	.00017	.00003	.00002	.005	.00065
%RSD	.07443	.07136	.78310	.00170	.16442	.06290	2.5148	.02335	1.2815

#1	.04871	1.0309	.19210	.09857	.10350	.05054	-.00065	20.147	.04996
#2	.04876	1.0319	.19424	.09857	.10326	.05050	-.00067	20.154	.05087

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05171	.04870	.07459	1.0219	20.510	.10507	20.279	.05092	.05050
Stddev	.00015	.00009	.00031	.0036	.039	.00131	.099	.00033	.00007
%RSD	.28462	.18599	.41521	.35272	.19023	1.2496	.48786	.64925	.14727

#1	.05181	.04863	.07437	1.0245	20.538	.10600	20.209	.05115	.05045
#2	.05160	.04876	.07481	1.0194	20.483	.10414	20.349	.05068	.05056

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.387	.05340	1.9669	.10360	-.01606	.09823	.19096	5.2856	11.311
Stddev	.184	.00057	.0124	.00148	.00618	.00104	.00271	.0414	.089
%RSD	.90021	1.0738	.62844	1.4286	38.493	1.0597	1.4178	.78323	.78323

#1	20.516	.05300	1.9582	.10255	-.01169	.09749	.18904	5.3148	11.374
#2	20.257	.05381	1.9756	.10464	-.02044	.09896	.19287	5.2563	11.248

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10169	.05150	.19794	.05002	.20619	.48722	.04922	.21495	.04333
Stddev	.00079	.00005	.00037	.00003	.00153	.02666	.00030	.00045	.00169
%RSD	.77472	.09578	.18913	.05026	.73995	5.4722	.61422	.20783	3.9016

#1	.10225	.05154	.19820	.05001	.20727	.46837	.04901	.21527	.04453
#2	.10113	.05147	.19767	.05004	.20511	.50607	.04943	.21464	.04214

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3266.2	54490.	6602.4
Stddev	3.1	274.	10.0
%RSD	.09362	.50335	.15107

#1	3268.4	54296.	6595.3
#2	3264.1	54684.	6609.4

Sample Name: CCVH-3294468 Acquired: 6/1/2015 13:37:42 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00261	49.907	-0.00280	-0.00013	.00091	.00007	.99116	.03944	-0.00005	-0.00043	.00075	.00217	49.678
Stddev	.00063	.147	.00273	.00004	.00021	.00007	.00413	.00382	.00016	.00038	.00014	.00045	.519
%RSD	24.119	.29371	97.471	32.699	22.927	102.40	.41695	9.6737	328.25	89.369	18.420	20.625	1.0456

#1	.00305	49.804	-0.00087	-0.00010	.00106	.00002	.99409	.03675	.00006	-0.00016	.00065	.00185	49.311
#2	.00216	50.011	-0.00473	-0.00016	.00076	.00011	.98824	.04214	-0.00016	-0.00070	.00085	.00248	50.046

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.21534	.00353	.04551	-0.00109	-0.00059	253.39	.00292	-0.00383	.00086	4.8609	-0.01132	-0.00026	-0.01560
Stddev	.06663	.00006	.00485	.00004	.00043	1.98	.00003	.00284	.00003	.0126	.00119	.00189	.00932
%RSD	30.940	1.6560	10.647	3.8401	73.169	.78059	1.1879	74.265	3.5639	.25975	10.501	734.54	59.712

#1	.16823	.00349	.04893	-0.00106	-0.00089	251.99	.00289	-0.00182	.00084	4.8699	-0.01216	.00108	-0.00901
#2	.26246	.00357	.04208	-0.00112	-0.00028	254.79	.00294	-0.00584	.00088	4.8520	-0.01048	-0.00159	-0.02219

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.03338	-0.00395	.00052	4.9562	-0.01344	.00216	10.287	.00259	.00006	-1.12510
Stddev	.01993	.00081	.00004	.0006	.00034	.00058	.230	.00041	.00007	.00392
%RSD	59.712	20.499	7.6786	.01317	2.5490	26.726	2.2351	15.647	116.79	3.1336

#1	-0.01929	-0.00337	.00054	4.9558	-0.01368	.00175	10.125	.00230	.00001	-1.12788
#2	-0.04748	-0.00452	.00049	4.9567	-0.01320	.00256	10.450	.00288	.00011	-1.12233

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3196.6	52941.	6445.1
Stddev	8.4	84.	68.8
%RSD	.26182	.15866	1.0675

#1	3202.5	52881.	6493.8
#2	3190.7	53000.	6396.5

Sample Name: CCV-3296664 Acquired: 6/1/2015 13:40:19 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49582	.52913	.98415	.48964	.51158	.50849	-.00197	5.2911	.49045	.52927	.49302	.50454	2.5677
Stddev	.00091	.00302	.00737	.00479	.00205	.00074	.00006	.0204	.00245	.00116	.00122	.00121	.0034
%RSD	.18364	.57092	.74883	.97869	.40039	.14496	2.9595	.38504	.50028	.21960	.24653	.23952	.13049

#1	.49646	.53126	.98936	.49303	.51303	.50901	-.00201	5.3055	.49218	.53009	.49388	.50540	2.5701
#2	.49518	.52699	.97894	.48625	.51013	.50797	-.00193	5.2767	.48871	.52845	.49216	.50369	2.5654

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.842	1.0324	20.800	.50701	.50904	5.1431	.52890	.98753	1.0324	-.01876	.98521	.97361	5.2243
Stddev	.035	.0019	.011	.00105	.00019	.0145	.00259	.00826	.0023	.00008	.00669	.00203	.0285
%RSD	.06842	.18922	.05204	.20698	.03811	.28184	.48884	.83612	.22702	.42297	.67943	.20818	.54525

#1	51.817	1.0310	20.792	.50627	.50918	5.1534	.53073	.98169	1.0340	-.01871	.98995	.97218	5.2445
#2	51.867	1.0338	20.808	.50775	.50890	5.1329	.52707	.99336	1.0307	-.01882	.98048	.97505	5.2042

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.180	1.0326	.50767	-.00592	.50189	1.0360	-.02266	.50344	.52529	.51846
Stddev	.061	.0023	.00047	.00211	.00014	.0040	.00026	.00070	.00002	.00046
%RSD	.54525	.22646	.09236	35.656	.02716	.38837	1.1350	.13844	.00301	.08888

#1	11.223	1.0309	.50800	-.00442	.50179	1.0389	-.02284	.50294	.52528	.51878
#2	11.137	1.0342	.50734	-.00741	.50199	1.0332	-.02247	.50393	.52531	.51813

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3249.2	54006.	6405.7
Stddev	3.7	5.	56.8
%RSD	.11292	.00926	.88718

#1	3251.8	54009.	6365.5
#2	3246.7	54002.	6445.9

Sample Name: CCB Acquired: 6/1/2015 13:42:48 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0090	-0.0025	-0.0159	-0.0029	.00019	-0.0010	.00015	.00699	-0.0019	.00042	.00002	.00179	.00063
Stddev	.00008	.00024	.00365	.00016	.00025	.00002	.00091	.00014	.00000	.00031	.00013	.00013	.00100
%RSD	9.2488	99.288	228.97	55.794	128.44	19.229	588.29	2.0075	1.0998	74.714	590.76	7.0781	159.21
#1	-0.0096	-0.0042	-0.00418	-0.00040	.00037	-0.00012	.00080	.00689	-0.0019	.00064	-0.00007	.00170	-0.00008
#2	-0.0084	-0.00007	.00099	-0.00017	.00002	-0.00009	-0.00049	.00709	-0.00018	.00020	.00011	.00188	.00133

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.22507	.00057	.00129	.00011	.00015	-0.00835	.00055	-0.00081	-0.00042	-0.02158	-0.00136	-0.00270	.03852
Stddev	.01819	.00121	.00272	.00003	.00008	.00959	.00002	.00071	.00072	.00233	.00084	.00327	.00595
%RSD	8.0818	209.88	211.08	31.833	54.260	114.77	3.6222	88.156	172.13	10.784	61.741	121.33	15.453
#1	.21221	-0.00028	-0.00063	.00008	.00021	-0.0157	.00053	-0.00030	.00009	-0.01994	-0.00196	-0.00501	.04273
#2	.23794	.00143	.00321	.00013	.00009	-0.01513	.00056	-0.00131	-0.00092	-0.02323	-0.00077	-0.00038	.03431

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08244	-0.00093	.00008	-0.00188	-0.00033	.00248	-0.01227	-0.00069	-0.00028	-0.00433
Stddev	.01274	.00074	.00005	.00046	.00007	.00050	.00500	.00040	.00043	.00026
%RSD	15.453	79.719	58.548	24.598	21.147	20.307	40.787	57.240	153.90	6.0635
#1	.09144	-0.00145	.00005	-0.00155	-0.00038	.00283	-0.00873	-0.00097	-0.00058	-0.00451
#2	.07343	-0.00040	.00011	-0.00220	-0.00028	.00212	-0.01581	-0.00041	.00002	-0.00414

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3258.0	54873.	6465.0
Stddev	12.2	140.	51.0
%RSD	.37406	.25592	.78949
#1	3266.6	54972.	6428.9
#2	3249.3	54774.	6501.1

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00939	.11099	.01459	.09521	.01057	.00110	.10351	.22692	.00489	.01080	.01010	.01689
Stddev	.00065	.00005	.00344	.00032	.00014	.00011	.00266	.00559	.00031	.00029	.00007	.00031
%RSD	6.8930	.04830	23.571	.33919	1.3318	9.9220	2.5740	2.4630	6.3506	2.6408	.67603	1.8592

#1	.00893	.11095	.01215	.09543	.01067	.00102	.10540	.23087	.00510	.01060	.01015	.01667
#2	.00985	.11102	.01702	.09498	.01047	.00118	.10163	.22297	.00467	.01100	.01006	.01711

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10602	3.3955	F .01306	.22817	.01088	.01945	1.0641	.04290	2.8274	.00927	-.02164	.00832
Stddev	.00200	.0758	.00012	.00319	.00006	.00025	.0195	.00013	.0019	.00163	.00102	.00004
%RSD	1.8826	2.2330	.89775	1.3977	.54639	1.2817	1.8348	.29985	.06543	17.598	4.7240	.49785

#1	.10743	3.4491	.01314	.22591	.01083	.01928	1.0779	.04299	2.8287	.01042	-.02236	.00829
#2	.10461	3.3419	.01298	.23043	.01092	.01963	1.0503	.04281	2.8261	.00811	-.02091	.00835

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01329	.54266	1.1613	.10090	.01068	.01516	.00993	.01756	.07717	.01014	.02297	.01078
Stddev	.00001	.00435	.0093	.00106	.00018	.00044	.00018	.00073	.04094	.00002	.00065	.00075
%RSD	.06977	.80222	.80222	1.0481	1.6972	2.9073	1.8393	4.1353	53.052	.15018	2.8471	6.9530

#1	.01330	.54573	1.1679	.10165	.01081	.01547	.00980	.01807	.10612	.01015	.02251	.01025
#2	.01329	.53958	1.1547	.10015	.01055	.01485	.01006	.01704	.04822	.01013	.02344	.01131

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3281.4	54249.	6469.5
Stddev	2.1	575.	76.0
%RSD	.06381	1.0601	1.1748

#1	3280.0	53843.	6415.8
#2	3282.9	54656.	6523.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00042	.00241	-0.00217	-0.00091	.00055	-0.00001	-0.00166	.02618	.00007
Stddev	.00012	.00054	.00039	.00050	.00014	.00008	.00022	.00174	.00005
%RSD	28.428	22.292	17.940	54.354	25.510	592.74	13.420	6.6446	64.566

#1	-0.00051	.00279	-0.00245	-0.00056	.00045	.00004	-0.00150	.02741	.00004
#2	-0.00034	.00203	-0.00190	-0.00126	.00065	-0.00007	-0.00182	.02495	.00010

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.00006	.00181	.01274	.21106	.00287	.00454	.00034	-0.00005
Stddev	.00006	.00001	.00005	.00209	.02512	.00046	.00366	.00006	.00001
%RSD	609.43	20.641	2.7174	16.402	11.903	16.048	80.520	17.257	13.892

#1	.00005	.00007	.00177	.01422	.19330	.00320	.00713	.00038	-0.00006
#2	-0.00003	.00005	.00184	.01126	.22883	.00255	.00196	.00030	-0.00005

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.02369	-0.00035	-0.00662	.00063	-.02022	-0.00228	-0.00160	.02538	.05431
Stddev	.00270	.00034	.00023	.00048	.00126	.00046	.00425	.01631	.03491
%RSD	11.395	96.052	3.4229	75.090	6.2335	20.216	266.24	64.279	64.279

#1	-0.02178	-0.00011	-0.00646	.00097	-0.02111	-0.00195	-0.00460	.03692	.07900
#2	-0.02559	-0.00059	-0.00678	.00030	-0.01933	-0.00261	.00141	.01384	.02963

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00022	.00009	-0.00117	-0.00042	-0.00110	.00562	-0.00045	.00103	-0.00353
Stddev	.00017	.00000	.00018	.00018	.00159	.02701	.00012	.00083	.00099
%RSD	77.648	3.5297	15.142	43.938	145.19	480.44	26.074	80.157	27.980

#1	-0.00034	.00009	-0.00104	-0.00029	.00003	.02472	-0.00054	.00045	-0.00283
#2	-0.00010	.00009	-0.00130	-0.00054	-0.00222	-0.01347	-0.00037	.00162	-0.00423

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3268.6	54069.	6406.4
Stddev	11.5	213.	29.0
%RSD	.35283	.39423	.45241

#1	3260.5	53919.	6426.9
#2	3276.8	54220.	6385.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04878	1.9993	.97168	.97987	2.0256	.04991	1.9363	50.583	.09854
Stddev	.00021	.0026	.00718	.00057	.0006	.00006	.0009	.113	.00015
%RSD	.43174	.13147	.73850	.05854	.03054	.11696	.04625	.22366	.15523

#1	.04864	1.9974	.96661	.98028	2.0261	.04995	1.9369	50.663	.09843
#2	.04893	2.0011	.97676	.97947	2.0252	.04986	1.9357	50.503	.09865

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50140	F .18574	.25252	1.0191	51.628	1.0258	51.065	.50085	1.0355
Stddev	.00278	.00011	.00229	.0024	.132	.0002	.163	.00018	.0049
%RSD	.55351	.06032	.90667	.23736	.25637	.02024	.31833	.03501	.46794

#1	.49943	.18566	.25090	1.0209	51.722	1.0256	50.950	.50072	1.0321
#2	.50336	.18582	.25414	1.0174	51.535	1.0259	51.180	.50097	1.0390

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	52.111	.50103	9.9849	.50235	1.9756	.49666	1.9775	10.374	22.201
Stddev	.413	.00271	.0157	.00244	.0032	.00006	.0099	.014	.030
%RSD	.79217	.54133	.15671	.48618	.16085	.01119	.49843	.13482	.13482

#1	51.819	.49911	9.9738	.50063	1.9779	.49662	1.9705	10.384	22.222
#2	52.403	.50295	9.9959	.50408	1.9734	.49670	1.9845	10.365	22.180

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0446	1.0048	.99424	1.0024	2.0138	2.0632	.50008	.50600	.49090
Stddev	.0150	.0009	.00044	.0013	.0094	.0160	.00169	.00141	.00360
%RSD	.73217	.08751	.04448	.13083	.46808	.77455	.33715	.27767	.73235

#1	2.0340	1.0054	.99456	1.0033	2.0071	2.0745	.49889	.50699	.48836
#2	2.0552	1.0042	.99393	1.0014	2.0204	2.0519	.50127	.50501	.49345

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3167.1	53228.	6491.6
Stddev	17.7	125.	25.6
%RSD	.55954	.23458	.39486

#1	3179.7	53317.	6473.5
#2	3154.6	53140.	6509.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00068	.00551	-0.00401	.01064	.08917	-0.00007	-0.00168	22.520	.00014
Stddev	.00026	.00018	.00293	.00024	.00056	.00017	.00010	.019	.00014
%RSD	38.677	3.2128	72.984	2.2355	.63100	266.20	5.9216	.08295	98.991

#1	-0.00086	.00563	-0.00608	.01081	.08878	-0.00019	-0.00175	22.507	.00024
#2	-0.00049	.00538	-0.00194	.01048	.08957	.00006	-0.00161	22.533	.00004

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00020	.00043	.00193	.01458	1.1077	.01206	4.7791	.00050	-0.00046
Stddev	.00038	.00010	.00013	.00018	.0330	.00025	.0393	.00002	.00014
%RSD	185.69	24.032	6.7804	1.2411	2.9754	2.0549	.82285	4.8609	30.241

#1	-0.00047	.00050	.00184	.01445	1.1310	.01189	4.7513	.00052	-0.00056
#2	.00006	.00036	.00202	.01470	1.0844	.01224	4.8069	.00048	-0.00036

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.433	.00147	.01727	.00098	7.5897	-0.00014	-0.00111	11.744	25.133
Stddev	.298	.00013	.00091	.00068	.0700	.00442	.00117	.177	.379
%RSD	2.2152	8.8762	5.2482	68.556	.92187	3155.3	104.77	1.5068	1.5068

#1	13.223	.00137	.01792	.00051	7.5403	.00298	-0.00194	11.869	25.400
#2	13.644	.00156	.01663	.00146	7.6392	-0.00327	-0.00029	11.619	24.865

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00124	.14268	-0.00155	-0.00037	-0.00292	-0.02297	-0.00089	.00119	-0.00362
Stddev	.00008	.00030	.00251	.00030	.00062	.01470	.00010	.00003	.00046
%RSD	6.4028	.20783	161.89	78.833	21.222	64.003	10.765	2.3541	12.791

#1	-0.00130	.14247	.00022	-0.00017	-0.00335	-0.03336	-0.00095	.00121	-0.00394
#2	-0.00118	.14289	-0.00333	-0.00058	-0.00248	-0.01257	-0.00082	.00117	-0.00329

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3255.8	53816.	6495.4
Stddev	2.6	144.	92.0
%RSD	.07863	.26728	1.4157

#1	3257.6	53917.	6430.4
#2	3253.9	53714.	6560.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0003	.00573	-0.00142	.00969	.09188	.00003	-0.00047	23.249	.00026
Stddev	.00000	.00017	.00249	.00011	.00041	.00010	.00054	.121	.00000
%RSD	7.2213	2.9365	176.20	1.1327	.44222	342.06	113.78	.52023	.36049

#1	-0.0003	.00561	.00035	.00962	.09159	.00010	-0.00009	23.164	.00026
#2	-0.0003	.00585	-.00318	.00977	.09217	-.00004	-0.00085	23.335	.00026

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0032	.00035	.00194	.00972	1.1153	.01226	4.8849	.00051	-0.0075
Stddev	.00012	.00016	.00012	.00113	.0103	.00200	.0023	.00005	.00062
%RSD	36.175	46.359	6.3066	11.600	.92723	16.326	.04687	10.366	82.803

#1	-0.0024	.00024	.00203	.01051	1.1226	.01084	4.8865	.00055	-0.0031
#2	-0.0040	.00047	.00185	.00892	1.1079	.01367	4.8833	.00047	-0.0120

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.109	.00109	.01895	.00013	7.8042	-0.00271	.00219	11.994	25.668
Stddev	.189	.00049	.00064	.00028	.0115	.00141	.00055	.093	.198
%RSD	1.3370	44.980	3.3763	220.93	.14685	51.874	25.294	.77320	.77320

#1	13.976	.00074	.01850	.00033	7.7961	-.00172	.00258	11.929	25.528
#2	14.243	.00144	.01941	-.00007	7.8123	-.00371	.00179	12.060	25.808

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0152	.14777	-0.00009	-0.00091	-0.00268	.00440	-0.00041	.00038	-0.0245
Stddev	.00016	.00080	.00301	.00001	.00104	.00091	.00049	.00021	.00184
%RSD	10.381	.54017	3313.2	.74527	38.908	20.776	119.86	53.537	75.042

#1	-0.0163	.14720	-.00222	-.00090	-.00195	.00376	-0.00006	.00024	-0.0115
#2	-0.0141	.14833	.00204	-.00091	-.00342	.00505	-0.00075	.00053	-0.0376

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3265.5	54543.	6637.7
Stddev	5.5	167.	15.5
%RSD	.16958	.30581	.23279

#1	3269.4	54425.	6648.6
#2	3261.6	54661.	6626.8

Sample Name: 280-69748-A-4-D SD@5 Acquired: 6/1/2015 13:57:59 Type: Unk

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment: 279415 6010B (Ag)

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0018	.00083	-0.00189	.00058	.01913	.00000	-0.00105	4.9203	-0.00015
Stddev	.00055	.00105	.00253	.00001	.00010	.00004	.00185	.0221	.00001
%RSD	311.10	126.09	133.91	1.6198	.51814	1290.6	177.07	.44919	8.7867

#1	.00021	.00009	-.00010	.00058	.01920	.00003	.00026	4.9047	-.00016
#2	-.00056	.00158	-.00368	.00059	.01906	-.00003	-.00236	4.9359	-.00014

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00013	.00019	.00198	.00796	.40609	.00446	1.0052	.00014	-0.00048
Stddev	.00021	.00014	.00012	.00057	.04315	.00075	.0046	.00007	.00043
%RSD	163.40	74.242	5.8780	7.1277	10.625	16.841	.45319	52.440	88.956

#1	-.00002	.00030	.00207	.00756	.37558	.00393	1.0084	.00009	-.00018
#2	.00028	.00009	.00190	.00836	.43660	.00499	1.0020	.00020	-.00078

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.0321	.00092	-0.00545	.00050	1.5577	-0.00285	-0.00482	2.4960	5.3414
Stddev	.0485	.00031	.00267	.00032	.0314	.00009	.00012	.0008	.0018
%RSD	1.5980	33.761	48.906	63.745	2.0131	3.1492	2.4317	.03397	.03397

#1	3.0664	.00114	-.00357	.00027	1.5798	-.00279	-.00490	2.4954	5.3401
#2	2.9979	.00070	-.00734	.00073	1.5355	-.00291	-.00474	2.4966	5.3427

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00343	.03091	-0.00228	-0.00029	-0.00025	.02011	-0.00078	-0.00035	-0.00451
Stddev	.00039	.00008	.00105	.00001	.00023	.01223	.00058	.00052	.00043
%RSD	11.254	.25756	45.916	1.8792	92.745	60.837	74.211	148.21	9.5675

#1	.00370	.03097	-.00154	-.00029	-.00009	.01146	-.00037	-.00072	-.00420
#2	.00316	.03086	-.00302	-.00030	-.00041	.02876	-.00120	.00002	-.00481

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3270.7	54697.	6533.6
Stddev	2.4	230.	27.3
%RSD	.07226	.42127	.41813

#1	3272.3	54860.	6553.0
#2	3269.0	54534.	6514.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04961	2.0119	.99163	.99244	2.1320	.05095	F 1.9482	72.966	.09923
Stddev	.00025	.0004	.00219	.00632	.0061	.00023	.0150	.054	.00049
%RSD	.50144	.02082	.22040	.63656	.28528	.44303	.77105	.07335	.49059

#1	.04978	2.0122	.99318	.99690	2.1277	.05111	1.9589	72.929	.09958
#2	.04943	2.0116	.99009	.98797	2.1363	.05079	1.9376	73.004	.09889

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50566	W .18913	.25375	1.0277	53.421	1.0486	55.880	.50903	1.0416
Stddev	.00023	.00015	.00156	.0095	.091	.0030	.025	.00138	.0022
%RSD	.04641	.07755	.61550	.91938	.17044	.28947	.04558	.27182	.21345

#1	.50583	.18923	.25486	1.0343	53.357	1.0464	55.862	.50805	1.0432
#2	.50549	.18902	.25265	1.0210	53.486	1.0507	55.898	.51001	1.0400

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	67.338	.50664	W 10.154	.49892	9.6098	.49790	1.9642	22.138	47.375
Stddev	.215	.00166	.049	.00348	.0627	.00628	.0055	.077	.165
%RSD	.31934	.32709	.48332	.69709	.65200	1.2613	.27784	.34901	.34901

#1	67.490	.50781	10.188	.50138	9.6541	.49346	1.9680	22.192	47.492
#2	67.186	.50547	10.119	.49646	9.5655	.50234	1.9603	22.083	47.258

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2.0301	1.1583	1.0051	1.0107	1.9739	2.0740	.50738	.51324	.49419
Stddev	.0084	.0035	.0036	.0026	.0037	.0357	.00222	.00562	.00068
%RSD	.41530	.30050	.35492	.25632	.18892	1.7218	.43682	1.0944	.13836

#1	2.0241	1.1558	1.0077	1.0089	1.9713	2.0487	.50581	.50927	.49467
#2	2.0361	1.1608	1.0026	1.0126	1.9766	2.0992	.50895	.51721	.49370

Check ?	Chk Warn	Chk Pass							
High Limit	2.0000								
Low Limit	-.05000								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3173.8	53115.	6620.4
Stddev	4.5	247.	5.9
%RSD	.14333	.46574	.08935

#1	3177.0	53289.	6616.2
#2	3170.6	52940.	6624.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05051	2.0373	1.0061	1.0188	2.1565	.05162	F 1.9850	73.775	.10090
Stddev	.00076	.0005	.0093	.0000	.0072	.00062	.0005	.428	.00046
%RSD	1.5107	.02362	.92473	.00266	.33439	1.2080	.02338	.58013	.45097

#1	.05105	2.0370	1.0127	1.0188	2.1616	.05206	1.9847	74.077	.10058
#2	.04997	2.0376	.99951	1.0188	2.1514	.05118	1.9853	73.472	.10122

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51148	W .19006	.25863	1.0336	53.822	1.0571	56.230	.51298	1.0583
Stddev	.00086	.00050	.00335	.0133	.276	.0028	.208	.00009	.0016
%RSD	.16836	.26399	1.2961	1.2859	.51201	.26778	.36948	.01755	.15235

#1	.51209	.18970	.26100	1.0430	54.016	1.0591	56.377	.51304	1.0594
#2	.51087	.19041	.25626	1.0242	53.627	1.0551	56.083	.51291	1.0571

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	67.937	.51116	W 10.296	.50634	9.8234	.50968	1.9986	22.357	47.844
Stddev	.417	.00152	.007	.00163	.0027	.00075	.0088	.170	.363
%RSD	.61404	.29674	.06823	.32190	.02711	.14682	.43934	.75931	.75931

#1	68.232	.51223	10.291	.50519	9.8215	.51021	2.0049	22.477	48.101
#2	67.642	.51009	10.301	.50749	9.8252	.50915	1.9924	22.237	47.587

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2.0573	1.1724	1.0188	1.0276	2.0123	2.1106	.51358	.51259	.49629
Stddev	.0113	.0056	.0009	.0015	.0066	.0431	.00160	.00388	.00250
%RSD	.54980	.48056	.09197	.14623	.32675	2.0405	.31195	.75770	.50396

#1	2.0653	1.1764	1.0195	1.0287	2.0170	2.1410	.51245	.50984	.49806
#2	2.0493	1.1684	1.0182	1.0266	2.0077	2.0801	.51471	.51533	.49452

Check ?	Chk Warn	Chk Pass							
High Limit	2.0000								
Low Limit	-.05000								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3150.6	53120.	6609.0
Stddev	6.7	272.	66.1
%RSD	.21127	.51203	1.0003

#1	3145.9	53312.	6562.3
#2	3155.3	52928.	6655.8

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00337	50.175	-0.00189	.00057	.00082	.00009	.97432	.03384	-0.00028	-0.00028	.00047	.00158	50.173
Stddev	.00027	.048	.00031	.00015	.00007	.00004	.00214	.00087	.00003	.00009	.00040	.00007	.566
%RSD	8.1649	.09562	16.434	26.202	8.8534	47.052	.21988	2.5837	12.010	33.261	84.762	4.4516	1.1272

#1	.00317	50.209	-0.00211	.00067	.00087	.00006	.97584	.03322	-0.00030	-0.00035	.00076	.00163	50.573
#2	.00356	50.141	-0.00167	.00046	.00077	.00011	.97281	.03446	-0.00025	-0.00021	.00019	.00153	49.774

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.27510	.00359	.04671	-0.00144	-0.00042	252.10	.00241	-0.00096	.00137	4.7934	-0.00963	.00127	.00145
Stddev	.02281	.00052	.00533	.00011	.00005	.30	.00001	.00196	.00172	.0186	.00374	.00277	.02736
%RSD	8.2917	14.431	11.417	7.3710	12.330	.12055	.21137	202.81	125.27	.38873	38.871	218.84	1891.8

#1	.29123	.00322	.05048	-0.00151	-0.00045	251.88	.00241	.00042	.00258	4.8066	-.01228	-.00069	-.01790
#2	.25897	.00395	.04294	-0.00136	-0.00038	252.31	.00242	-.00235	.00016	4.7802	-.00698	.00322	.02079

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00309	-0.00401	.00039	4.9660	-0.01387	.00409	10.194	.00235	-0.00112	-.12500
Stddev	.05855	.00043	.00008	.0053	.00014	.00001	.001	.00015	.00019	.00184
%RSD	1891.8	10.696	20.110	.10703	1.0284	.29946	.00650	6.5744	16.902	1.4704

#1	-.03830	-.00431	.00044	4.9697	-.01398	.00409	10.193	.00224	-.00098	-.12370
#2	.04449	-.00371	.00033	4.9622	-.01377	.00410	10.194	.00246	-.00125	-.12630

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3193.0	52767.	6473.3
Stddev	24.9	213.	18.1
%RSD	.77941	.40384	.28010

#1	3175.4	52616.	6486.1
#2	3210.6	52917.	6460.5

Sample Name: CCV-3296664 Acquired: 6/1/2015 14:08:11 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49712	.53378	.98747	.48638	.50737	.50493	-.00040	5.2222	.49221	.52072	.48362	.49987	2.5525
Stddev	.00134	.00056	.00060	.00294	.00196	.00208	.00175	.0271	.00123	.00010	.00283	.00040	.0275
%RSD	.26929	.10413	.06036	.60524	.38545	.41217	434.50	.51909	.25031	.01840	.58479	.08023	1.0787

#1	.49617	.53417	.98705	.48430	.50599	.50346	-.00164	5.2030	.49134	.52065	.48162	.49959	2.5330
#2	.49807	.53339	.98789	.48846	.50876	.50640	.00083	5.2413	.49308	.52079	.48562	.50016	2.5720

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.445	1.0279	20.686	.51196	.50122	5.1713	.52035	.96766	1.0055	-.02123	.96250	.94810	5.1730
Stddev	.178	.0022	.041	.00038	.00210	.0396	.00015	.00305	.0069	.00093	.00423	.01116	.0642
%RSD	.34528	.20918	.19613	.07450	.41985	.76623	.02831	.31474	.68312	4.3590	.43940	1.1769	1.2405

#1	51.319	1.0264	20.657	.51223	.49973	5.1432	.52025	.96551	1.0007	-.02189	.95951	.94021	5.1276
#2	51.570	1.0294	20.714	.51169	.50271	5.1993	.52046	.96981	1.0104	-.02058	.96549	.95599	5.2183

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.070	1.0046	.50512	-.00664	.50490	1.0116	.00846	.50880	.52148	.51291
Stddev	.137	.0028	.00295	.00075	.00089	.0082	.01862	.00527	.00504	.00869
%RSD	1.2405	.28316	.58390	11.294	.17664	.81368	220.06	1.0365	.96640	1.6938

#1	10.973	1.0066	.50303	-.00611	.50427	1.0058	-.00470	.50507	.51792	.50677
#2	11.167	1.0026	.50720	-.00717	.50553	1.0174	.02162	.51253	.52505	.51905

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3247.8	53647.	6520.7
Stddev	15.1	228.	52.0
%RSD	.46481	.42527	.79749

#1	3237.1	53486.	6557.4
#2	3258.4	53808.	6483.9

Sample Name: CCB Acquired: 6/1/2015 14:10:39 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0040	-0.0062	-0.00385	-0.00109	.00011	-0.00014	.00137	.00461	-0.00006	.00020	.00002
Stddev	.00069	.00013	.00143	.00076	.00024	.00000	.00044	.00648	.00036	.00024	.00003
%RSD	170.63	20.460	37.148	69.921	215.20	1.4924	32.081	140.55	625.78	120.84	172.01

#1	-0.00089	-0.00071	-0.00284	-0.00055	.00028	-0.00013	.00106	.00920	-0.00032	.00037	.00000
#2	.00008	-0.00053	-0.00486	-0.00162	-0.00006	-0.00014	.00168	.00003	.00020	.00003	.00004

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00171	.00228	.16866	-0.00024	.00413	.00008	-0.00001	.01096	-0.00001	-0.00575	-0.00095
Stddev	.00008	.00009	.01055	.00132	.00246	.00002	.00004	.01144	.00004	.00281	.00200
%RSD	4.4938	3.7928	6.2544	560.74	59.404	22.584	766.40	104.37	326.22	48.919	210.32

#1	.00166	.00234	.17612	.00070	.00240	.00009	-0.00004	.00287	-0.00004	-0.00774	.00046
#2	.00176	.00222	.16120	-0.00117	.00587	.00006	.00002	.01905	.00002	-0.00376	-0.00236

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.22229	-0.00298	F -0.00917	.00189	.00404	-0.00158	.00012	-0.00209	-0.00027	.00195	.00596
Stddev	.00037	.00228	.00307	.00022	.00048	.00001	.00003	.00078	.00008	.00074	.00996
%RSD	1.6615	76.499	33.486	11.882	11.882	.46564	28.969	37.591	28.173	37.805	167.11

#1	-0.22255	-0.00459	-0.00700	.00173	.00370	-0.00158	.00014	-0.00153	-0.00032	.00247	-0.00108
#2	-0.22202	-0.00137	-0.01135	.00205	.00438	-0.00159	.00009	-0.00264	-0.00021	.00143	.01301

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass							
High Limit			.00500								
Low Limit			-.00500								

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	-0.00079	-0.00099	-0.00454
Stddev	.00004	.00025	.00030
%RSD	5.0955	25.729	6.6793

#1	-0.00076	-0.00081	-0.00432
#2	-0.00081	-0.00117	-0.00475

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3301.0	55273.	6589.8
Stddev	6.3	402.	11.8
%RSD	.19056	.72744	.17848

#1	3305.5	54989.	6598.1
#2	3296.6	55558.	6581.5

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01006	.11014	.01224	.09613	.01071	.00101	.10401	.22245	.00527	.01094	.00992	.01690	.10784
Stddev	.00007	.00069	.00486	.00019	.00008	.00005	.00435	.00708	.00030	.00006	.00021	.00011	.00271
%RSD	.71281	.62291	39.699	.19556	.75108	4.6445	4.1853	3.1850	5.7099	.53912	2.0766	.67842	2.5159

#1	.01011	.11063	.01568	.09599	.01065	.00104	.10093	.22746	.00549	.01090	.00977	.01682	.10976
#2	.01001	.10966	.00880	.09626	.01077	.00098	.10709	.21744	.00506	.01099	.01006	.01698	.10592

Check ?	Chk Pass												
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.3505	.01275	.22362	.01085	.01941	1.0820	.04207	2.7962	.00825	-.01517	.00746	.01088	.53279
Stddev	.0444	.00113	.00389	.00020	.00021	.0116	.00072	.0105	.00021	.00424	.00180	.00073	.00980
%RSD	1.3260	8.8299	1.7380	1.8319	1.1038	1.0717	1.7198	.37482	2.5936	27.972	24.178	6.6974	1.8400

#1	3.3819	.01354	.22087	.01071	.01956	1.0902	.04156	2.8036	.00810	-.01818	.00619	.01139	.53972
#2	3.3191	.01195	.22637	.01099	.01926	1.0738	.04258	2.7888	.00840	-.01217	.00874	.01036	.52586

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.1402	.09902	.01055	.01285	.00956	.01864	.05017	.00954	.02262	.01060
Stddev	.0210	.00075	.00006	.00035	.00004	.00098	.01418	.00056	.00090	.00076
%RSD	1.8400	.75496	.59560	2.7563	.39213	5.2484	28.268	5.8864	3.9798	7.2081

#1	1.1550	.09955	.01059	.01260	.00959	.01795	.04014	.00914	.02326	.01006
#2	1.1253	.09850	.01050	.01310	.00953	.01933	.06019	.00994	.02198	.01114

Check ?	Chk Pass									
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3317.6	55111.	6641.9
Stddev	6.7	115.	39.9
%RSD	.20265	.20782	.60043

#1	3312.9	55192.	6613.7
#2	3322.4	55030.	6670.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0004	.00302	-0.00551	.00349	.09331	-0.0012	-0.00193	35.395	.00024
Stddev	.00046	.00027	.00439	.00017	.00088	.00003	.00060	.005	.00007
%RSD	1167.5	8.7926	79.657	4.9577	.94170	21.457	31.026	.01324	30.030

#1	.00029	.00284	-.00241	.00361	.09269	-.00014	-.00151	35.392	.00019
#2	-.00037	.00321	-.00861	.00337	.09394	-.00010	-.00236	35.398	.00029

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0025	.00025	.00243	.00524	.61971	.00528	7.4551	.00059	-0.0111
Stddev	.00033	.00023	.00003	.00225	.02665	.00060	.0267	.00001	.00031
%RSD	133.06	92.470	1.0904	42.955	4.2999	11.432	.35839	2.5114	27.621

#1	-.00048	.00041	.00241	.00365	.60087	.00485	7.4362	.00061	-.00089
#2	-.00001	.00009	.00245	.00683	.63856	.00570	7.4740	.00058	-.00133

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.176	.00327	-0.00518	.00159	11.655	-0.00165	-0.00190	9.2445	19.783
Stddev	.421	.00051	.00299	.00047	.039	.00021	.00163	.1765	.378
%RSD	2.3179	15.691	57.586	29.769	.33604	12.821	86.045	1.9092	1.9092

#1	17.878	.00363	-.00730	.00192	11.627	-.00180	-.00074	9.1197	19.516
#2	18.474	.00291	-.00307	.00125	11.682	-.00150	-.00305	9.3693	20.050

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0013	.19672	-0.00034	-0.00054	-0.00421	-0.02611	-0.00096	.00102	-0.00357
Stddev	.00016	.00020	.00040	.00066	.00185	.00357	.00050	.00060	.00185
%RSD	128.54	.10168	114.94	121.87	43.988	13.666	51.495	58.319	51.970

#1	-.00024	.19658	-.00062	-.00100	-.00290	-.02863	-.00061	.00145	-.00488
#2	-.00001	.19687	-.00006	-.00007	-.00552	-.02358	-.00132	.00060	-.00226

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3223.8	53632.	6520.4
Stddev	14.8	20.	43.3
%RSD	.45954	.03787	.66462

#1	3213.3	53647.	6489.7
#2	3234.2	53618.	6551.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00019	.06509	-.00447	.01629	.06608	.00001	-.00239	25.581	.00007
Stddev	.00028	.00009	.00151	.00018	.00057	.00008	.00030	.003	.00023
%RSD	146.74	.13081	33.758	1.1229	.85684	590.74	12.418	.01076	317.02

#1	-.00001	.06503	-.00340	.01616	.06648	.00007	-.00260	25.579	-.00009
#2	.00039	.06515	-.00554	.01642	.06568	-.00004	-.00218	25.583	.00024

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	-.00005	.00196	.04056	.67764	.00608	5.1457	.00056	-.00081
Stddev	.00027	.00002	.00039	.00098	.02376	.00074	.0079	.00009	.00005
%RSD	505.32	30.671	19.771	2.4140	3.5062	12.256	.15290	15.588	5.9373

#1	-.00025	-.00004	.00169	.04125	.66084	.00661	5.1401	.00063	-.00078
#2	.00014	-.00006	.00224	.03987	.69444	.00555	5.1512	.00050	-.00084

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.600	.00171	-.00271	.00120	9.9204	-.00303	-.00403	8.7223	18.666
Stddev	.046	.00016	.00104	.00105	.0264	.00090	.00205	.0846	.181
%RSD	.36775	9.1884	38.326	87.223	.26586	29.588	50.937	.97029	.97029

#1	12.633	.00160	-.00197	.00194	9.9018	-.00239	-.00548	8.7822	18.794
#2	12.567	.00182	-.00344	.00046	9.9391	-.00366	-.00258	8.6625	18.538

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00265	.13032	-.00023	.00049	-.00234	-.02765	-.00065	.00043	-.00443
Stddev	.00031	.00019	.00056	.00032	.00273	.00002	.00015	.00104	.00014
%RSD	11.709	.14852	243.89	64.766	116.89	.05952	23.236	240.03	3.1556

#1	-.00243	.13046	.00017	.00027	-.00427	-.02764	-.00054	.00117	-.00453
#2	-.00287	.13018	-.00063	.00072	-.00041	-.02766	-.00076	-.00030	-.00433

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3224.9	53929.	6557.7
Stddev	3.3	205.	24.4
%RSD	.10227	.38081	.37166

#1	3222.6	54074.	6574.9
#2	3227.3	53784.	6540.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.00389	-.00039	.03124	.11909	-.00011	-.00273	105.07	.00024
Stddev	.00016	.00040	.00095	.00060	.00072	.00006	.00043	.58	.00008
%RSD	632.78	10.230	242.18	1.9365	.60452	56.113	15.903	.55127	31.966

#1	.00014	.00417	.00028	.03081	.11859	-.00006	-.00242	104.67	.00029
#2	-.00009	.00361	-.00107	.03167	.11960	-.00015	-.00304	105.48	.00018

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	.00135	.00276	.03205	2.8785	.08315	20.737	.01121	-.00065
Stddev	.00003	.00007	.00043	.00064	.0180	.00192	.033	.00012	.00001
%RSD	22.521	5.4802	15.639	2.0061	.62598	2.3072	.15778	1.0933	1.1232

#1	.00009	.00141	.00246	.03160	2.8657	.08179	20.760	.01129	-.00066
#2	.00013	.00130	.00307	.03251	2.8912	.08451	20.714	.01112	-.00065

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	68.670	.00363	.01367	.00240	21.567	-.00018	.00494	9.9757	21.348
Stddev	1.284	.00012	.00171	.00126	.101	.00067	.00139	.1183	.253
%RSD	1.8692	3.3055	12.537	52.517	.46807	370.05	28.121	1.1862	1.1862

#1	67.763	.00355	.01246	.00151	21.496	-.00066	.00593	9.8920	21.169
#2	69.578	.00372	.01488	.00330	21.639	.00029	.00396	10.059	21.527

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00020	.69272	-.00048	-.00061	-.00517	.00912	-.00142	.00155	-.00452
Stddev	.00219	.00312	.00085	.00025	.00302	.01856	.00026	.00076	.00125
%RSD	1095.7	.45003	175.10	40.379	58.319	203.42	18.324	48.863	27.661

#1	.00135	.69051	.00012	-.00044	-.00731	-.00400	-.00160	.00209	-.00363
#2	-.00175	.69492	-.00108	-.00078	-.00304	.02225	-.00123	.00102	-.00540

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3152.5	52592.	6461.6
Stddev	6.5	208.	61.6
%RSD	.20553	.39595	.95282

#1	3157.1	52445.	6505.2
#2	3147.9	52739.	6418.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0047	.00359	-0.00271	.11146	.08541	-0.0012	-0.00161	112.70	.00022
Stddev	.00053	.00014	.00163	.00103	.00047	.00004	.00448	.29	.00011
%RSD	113.55	3.7659	60.123	.92181	.55230	31.550	278.29	.26154	49.596

#1	-0.00085	.00369	-0.00387	.11219	.08508	-0.00015	.00156	112.49	.00014
#2	-0.00009	.00349	-0.00156	.11074	.08575	-0.00010	-.00478	112.91	.00030

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0016	.00038	.00368	.01021	3.6562	.26112	33.355	.03397	-0.00143
Stddev	.00037	.00012	.00051	.00119	.0176	.00174	.017	.00031	.00071
%RSD	225.66	31.725	13.900	11.616	.48225	.66689	.05133	.91593	50.036

#1	-0.00043	.00046	.00332	.01105	3.6438	.25989	33.367	.03375	-0.00193
#2	.00010	.00029	.00404	.00937	3.6687	.26235	33.343	.03419	-0.00092

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	200.61	.00587	-0.00096	.00173	56.022	-0.00163	W -.00532	7.9239	16.957
Stddev	.97	.00100	.00078	.00106	.108	.00053	.00248	.0930	.199
%RSD	.48555	17.076	80.752	61.106	.19312	32.736	46.590	1.1732	1.1732

#1	199.92	.00658	-0.00041	.00248	55.946	-0.00200	-0.00357	7.9896	17.098
#2	201.30	.00516	-0.00151	.00098	56.099	-0.00125	-0.00707	7.8582	16.816

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							5.0000		
Low Limit							-0.00500		

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00023	1.0922	-0.00208	-0.00046	-0.00785	.02247	-0.00179	.00373	-0.00112
Stddev	.00089	.0042	.00148	.00026	.00263	.03927	.00041	.00073	.00082
%RSD	387.54	.37994	71.161	57.610	33.534	174.74	22.869	19.665	72.873

#1	.00040	1.0893	-0.00103	-0.00064	-0.00971	-0.00530	-0.00150	.00322	-0.00055
#2	-0.00086	1.0952	-0.00313	-0.00027	-0.00599	.05024	-0.00208	.00425	-0.00170

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3098.6	52135.	6413.9
Stddev	2.7	390.	4.1
%RSD	.08672	.74751	.06379

#1	3100.5	52411.	6411.0
#2	3096.7	51860.	6416.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0009	.00262	-0.00158	.05229	.03656	-0.0008	.00072	213.23	.00009
Stddev	.00027	.00025	.00101	.00048	.00032	.00003	.00168	.44	.00013
%RSD	297.62	9.6896	64.264	.91563	.86228	33.492	232.25	.20629	150.86

#1	.00010	.00279	-.00086	.05195	.03634	-.00006	.00191	213.54	-.00001
#2	-.00028	.00244	-.00229	.05263	.03679	-.00009	-.00047	212.91	.00018

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0022	.00079	.00390	.01900	4.2888	.27238	56.686	.01035	.00204
Stddev	.00006	.00004	.00024	.00002	.0420	.00068	.025	.00011	.00065
%RSD	29.040	4.4534	6.2788	.11024	.97806	.24907	.04441	1.0774	31.902

#1	-.00017	.00081	.00373	.01899	4.2592	.27286	56.669	.01027	.00250
#2	-.00026	.00076	.00407	.01902	4.3185	.27190	56.704	.01042	.00158

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	159.22	.00544	.00376	.00132	160.94	.00402	.33616	8.9609	19.176
Stddev	.31	.00033	.00577	.00220	.61	.00085	.00222	.0129	.028
%RSD	.19737	6.1534	153.32	166.46	.37711	21.181	.66164	.14439	.14439

#1	159.45	.00567	.00784	.00288	160.51	.00463	.33459	8.9517	19.157
#2	159.00	.00520	-.00032	-.00023	161.37	.00342	.33773	8.9700	19.196

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0108	1.8748	-0.00157	-0.00068	-0.00657	.10850	-0.00138	.00140	-0.00066
Stddev	.00040	.0046	.00075	.00009	.00138	.01503	.00009	.00069	.00094
%RSD	37.143	.24426	47.850	12.845	21.069	13.852	6.4250	49.177	141.34

#1	-.00137	1.8780	-.00104	-.00062	-.00559	.11912	-.00144	.00188	.00000
#2	-.00080	1.8715	-.00210	-.00074	-.00754	.09787	-.00131	.00091	-.00133

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3031.0	50955.	6421.0
Stddev	2.0	25.	10.3
%RSD	.06717	.04994	.16002

#1	3032.4	50973.	6428.3
#2	3029.5	50937.	6413.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.76176	-.00712	.27106	.02308	-.00011	-.00069	410.21	-.00019
Stddev	.00025	.01214	.00495	.00128	.00042	.00010	.00046	6.85	.00008
%RSD	242.71	1.5937	69.423	.47183	1.8007	90.087	66.113	1.6693	42.792

#1	.00028	.77034	-.00363	.27197	.02279	-.00018	-.00102	415.05	-.00013
#2	-.00007	.75317	-.01062	.27016	.02337	-.00004	-.00037	405.37	-.00025

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00163	.00212	.01257	2.2573	7.9837	.04276	163.85	.53243	-.00032
Stddev	.00011	.00018	.00008	.0031	.0158	.00026	.45	.00212	.00001
%RSD	6.5550	8.2902	.62109	.13742	.19784	.60690	.27248	.39864	3.9020

#1	.00156	.00225	.01262	2.2595	7.9949	.04258	163.54	.53093	-.00033
#2	.00171	.00200	.01251	2.2551	7.9725	.04295	164.17	.53393	-.00032

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	31.053	.01108	.04395	.00441	F 353.07	.00688	.00003	7.0237	15.031
Stddev	.378	.00024	.00412	.00092	.57	.00294	.00123	.0016	.003
%RSD	1.2164	2.1931	9.3816	20.909	.16089	42.721	3795.7	.02312	.02312

#1	30.786	.01125	.04104	.00376	353.47	.00480	-.00083	7.0225	15.028
#2	31.320	.01090	.04687	.00507	352.67	.00895	.00090	7.0248	15.033

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00121	.94281	-.00031	.03553	-.00984	-.00929	-.00103	.01336	-.00060
Stddev	.00031	.00121	.00042	.00283	.00026	.01729	.00013	.00009	.00024
%RSD	25.277	.12816	135.71	7.9640	2.6187	186.03	12.399	.65184	40.498

#1	-.00099	.94195	-.00060	.03753	-.00966	-.02152	-.00094	.01330	-.00077
#2	-.00143	.94366	-.00001	.03353	-.01002	.00293	-.00112	.01343	-.00043

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2958.4	48812.	6174.7
Stddev	32.7	410.	64.8
%RSD	1.1044	.84054	1.0488

#1	2935.3	49102.	6128.9
#2	2981.5	48522.	6220.5

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00362	49.339	-.00166	-.00195	.00063	.00010	.95518	.04695	-.00014	-.00048	.00060
Stddev	.00002	.154	.00360	.00006	.00032	.00003	.00191	.00224	.00044	.00024	.00003
%RSD	.63022	.31228	216.90	2.8967	50.540	25.911	.19964	4.7666	325.95	49.946	4.3788

#1	.00364	49.230	-.00420	-.00199	.00040	.00008	.95383	.04853	.00018	-.00065	.00058
#2	.00361	49.448	.00089	-.00191	.00085	.00012	.95652	.04537	-.00045	-.00031	.00062

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00125	48.658	.21772	.00032	.04744	-.00143	-.00104	249.62	.00249	-.00139	-.00015
Stddev	.00061	.059	.04091	.00038	.00417	.00009	.00022	.56	.00000	.00020	.00023
%RSD	48.670	.12112	18.789	117.86	8.7907	6.1500	21.074	.22308	.07116	14.469	153.25

#1	.00082	48.616	.18880	.00005	.04449	-.00137	-.00089	249.23	.00249	-.00125	.00001
#2	.00168	48.699	.24665	.00058	.05039	-.00150	-.00120	250.02	.00248	-.00153	-.00031

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.7059	-.00605	.00104	.00408	.00873	-.00380	.00046	4.9014	-.01350	.00429	10.041
Stddev	.0108	.00230	.00457	.00543	.01163	.00059	.00013	.0092	.00001	.00127	.002
%RSD	.22922	37.962	437.59	133.25	133.25	15.557	28.023	.18824	.04544	29.507	.01901

#1	4.7136	-.00767	.00428	.00792	.01695	-.00422	.00055	4.9079	-.01350	.00519	10.040
#2	4.6983	-.00443	-.00219	.00024	.00050	-.00339	.00037	4.8949	-.01349	.00339	10.043

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	5.0000										
Range	-5.0000%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00196	-.00171	-.12785
Stddev	.00015	.00014	.00199
%RSD	7.4873	7.9502	1.5588

#1	.00206	-.00162	-.12926
#2	.00185	-.00181	-.12644

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3129.7	51204.	6237.2
Stddev	9.1	284.	41.4
%RSD	.29110	.55403	.66306

#1	3136.1	51405.	6207.9
#2	3123.2	51003.	6266.4

Sample Name: CCV-3296664 Acquired: 6/1/2015 14:34:16 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48937	.53121	.96935	.47391	.49768	.49688	.00155	5.1654	.48283	.51399	.46759	.48844	2.5423
Stddev	.00246	.00062	.00196	.00073	.00066	.00110	.00019	.0153	.00002	.00661	.00584	.00045	.0152
%RSD	.50193	.11662	.20222	.15438	.13239	.22118	11.949	.29617	.00325	1.2867	1.2488	.09197	.59834

#1	.49111	.53077	.97074	.47443	.49722	.49610	.00142	5.1546	.48284	.51866	.47172	.48876	2.5315
#2	.48764	.53164	.96797	.47339	.49815	.49766	.00168	5.1763	.48282	.50931	.46346	.48813	2.5530

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.968	1.0153	20.465	.50784	.49257	5.1440	.51250	.95492	.98621	-.01160	.93309	.92509	5.1532
Stddev	.034	.0019	.005	.00022	.00623	.0078	.00660	.00344	.01130	.00125	.01165	.00621	.0193
%RSD	.06696	.18592	.02348	.04331	1.2653	.15134	1.2873	.36049	1.1457	10.738	1.2484	.67175	.37456

#1	50.944	1.0166	20.461	.50768	.49697	5.1384	.51717	.95736	.99420	-.01248	.94133	.92948	5.1669
#2	50.992	1.0139	20.468	.50799	.48816	5.1495	.50784	.95249	.97822	-.01072	.92485	.92069	5.1396

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.028	.99334	.49567	-.00681	.49776	.98651	.03149	.50422	.53068	.50293
Stddev	.041	.01071	.00136	.00325	.00103	.00756	.04340	.00203	.00209	.00047
%RSD	.37456	1.0782	.27412	47.685	.20607	.76653	137.83	.40217	.39468	.09345

#1	11.057	1.0009	.49471	-.00452	.49703	.99186	.00080	.50279	.53216	.50260
#2	10.999	.98577	.49664	-.00911	.49848	.98117	.06217	.50565	.52919	.50326

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3181.4	52265.	6215.7
Stddev	4.9	180.	6.2
%RSD	.15466	.34365	.09954

#1	3177.9	52138.	6211.4
#2	3184.9	52392.	6220.1

Sample Name: CCB Acquired: 6/1/2015 14:36:45 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0015	-0.00085	-0.00042	-0.00098	.00037	-0.00008	.00120	.00647	-0.00012	.00016	-0.00019	.00125	.00071
Stddev	.00002	.00038	.00034	.00003	.00008	.00008	.00052	.00193	.00009	.00001	.00014	.00045	.00118
%RSD	14.247	45.064	80.365	3.1172	21.364	107.90	42.876	29.827	78.777	9.3118	73.068	36.023	167.10

#1	-0.00014	-0.00112	-0.00018	-0.00096	.00031	-0.00002	.00157	.00784	-0.00018	.00017	-0.00028	.00157	.00154
#2	-0.00017	-0.00058	-0.00066	-0.00100	.00042	-0.00013	.00084	.00511	-0.00005	.00015	-0.00009	.00094	-0.00013

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.15151	-0.00136	.00150	.00016	-0.00006	.01871	.00043	-0.00764	-0.00033	-0.01084	-0.00293	-0.00324	.03365
Stddev	.05849	.00063	.00189	.00000	.00013	.00049	.00040	.00351	.00101	.00182	.00319	.00366	.01774
%RSD	38.608	46.209	125.85	2.1053	225.98	2.5934	92.937	45.883	307.34	16.826	108.66	113.29	52.728

#1	.11015	-0.00091	.00283	.00016	.00004	.01837	.00072	-0.00516	.00039	-.01213	-0.00068	-0.00064	.02110
#2	.19287	-0.00180	.00017	.00017	-0.00015	.01906	.00015	-0.01012	-0.00105	-0.00955	-0.00519	-0.00583	.04619

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07200	-0.00168	.00012	-0.00007	-0.00039	.00292	-0.02098	-0.00042	-0.00107	-0.00450
Stddev	.03797	.00034	.00004	.00053	.00019	.00069	.01809	.00013	.00033	.00223
%RSD	52.728	20.358	37.290	807.20	49.096	23.576	86.221	31.235	31.057	49.637

#1	.04516	-0.00193	.00009	.00031	-0.00053	.00244	-0.00819	-0.00032	-0.00084	-0.00292
#2	.09885	-0.00144	.00015	-0.00044	-0.00026	.00341	-0.03377	-0.00051	-0.00131	-0.00607

Check ?	Chk Pass									
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3217.1	52692.	6228.5
Stddev	7.3	578.	10.1
%RSD	.22712	1.0969	.16263

#1	3211.9	53101.	6235.7
#2	3222.2	52284.	6221.4

Sample Name: CCVL33022000 Acquired: 6/1/2015 14:39:07 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00967	.10735	.01377	.09268	.01012	.00099	.10147	.21686	.00488	.01040	.00973	.01611
Stddev	.00063	.00091	.00075	.00085	.00002	.00004	.00020	.00188	.00014	.00008	.00011	.00014
%RSD	6.4830	.84353	5.4158	.91554	.21604	3.7599	.19362	.86896	2.7750	.77522	1.0985	.85733

#1	.00922	.10799	.01324	.09328	.01013	.00102	.10133	.21819	.00478	.01045	.00980	.01601
#2	.01011	.10671	.01430	.09208	.01010	.00097	.10160	.21552	.00497	.01034	.00965	.01621

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10517	3.2592	.01256	.21837	.01067	.01876	1.0671	.04145	2.7411	.00919	-.01049	.00926
Stddev	.00398	.0053	.00116	.00421	.00003	.00055	.0089	.00059	.0283	.00013	.00207	.00278
%RSD	3.7834	.16093	9.2197	1.9285	.29757	2.9577	.83156	1.4241	1.0305	1.3973	19.732	30.019

#1	.10236	3.2629	.01338	.22135	.01069	.01916	1.0609	.04187	2.7610	.00910	-.01195	.01123
#2	.10798	3.2555	.01175	.21539	.01064	.01837	1.0734	.04103	2.7211	.00928	-.00903	.00729

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .00802	.51028	1.0920	.09726	.01028	.01474	.00923	.01613	F .03975	.00938	.02326	.01069
Stddev	.00254	.01328	.0284	.00147	.00001	.00084	.00029	.00026	.03854	.00011	.00070	.00156
%RSD	31.744	2.6022	2.6022	1.5157	.08628	5.7173	3.1183	1.5896	96.938	1.1853	3.0215	14.593

#1	.00622	.51967	1.1121	.09830	.01027	.01414	.00943	.01595	.06700	.00930	.02276	.01179
#2	.00982	.50089	1.0719	.09622	.01029	.01534	.00903	.01631	.01250	.00946	.02375	.00959

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass						
Value	.01500								.06000			
Range	-30.000%								-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3300.7	53659.	6400.1
Stddev	3.4	100.	4.7
%RSD	.10429	.18655	.07272

#1	3298.2	53588.	6403.4
#2	3303.1	53730.	6396.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -0.0023	.00256	.00172	-0.00163	.00055	-0.00001	.00001	.01011	-0.00001
Stddev	.00033	.00018	.00013	.00053	.00007	.00003	.00117	.00715	.00023
%RSD	142.08	7.0576	7.8098	32.735	12.264	340.84	9212.2	70.693	1854.2

#1	-0.0047	.00269	.00182	-0.00125	.00060	.00001	.00084	.01517	.00015
#2	.00000	.00243	.00163	-0.00200	.00050	-0.00003	-0.00082	.00506	-0.00017

Check ?	Chk Fail	Chk Pass							
High Limit	.01000								
Low Limit	-.00010								

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00003	-0.00002	W .00187	.00756	.11242	.00004	.00305	.00014	-0.00033
Stddev	.00005	.00002	.00010	.00138	.01777	.00009	.00005	.00004	.00002
%RSD	162.56	133.97	5.1948	18.260	15.811	237.11	1.5387	26.695	5.4626

#1	.00000	-0.00003	.00180	.00658	.09985	-0.00003	.00308	.00011	-0.00032
#2	.00006	.00000	.00193	.00854	.12499	.00010	.00302	.00017	-0.00034

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.00159						
Low Limit			-.00500						

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00810	-0.00025	W -0.00778	-0.00076	F -0.01680	-0.00295	-0.00373	F .01208	.02584
Stddev	.00892	.00007	.00153	.00034	.00344	.00109	.00261	.01873	.04008
%RSD	110.20	30.535	19.613	44.508	20.489	37.122	69.954	155.09	155.09

#1	.00179	-0.00030	-0.00670	-0.00052	-0.01437	-0.00217	-0.00188	-0.00117	-0.00250
#2	.01440	-0.00019	-0.00886	-0.00100	-0.01923	-0.00372	-0.00557	.02532	.05418

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	None
High Limit			.01035		.01000			.01000	
Low Limit			-.00500		-.01000			-.01000	

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00108	.00012	-0.00108	-0.00036	.00198	.00671	-0.00050	.00003	-0.00355
Stddev	.00149	.00003	.00092	.00036	.00018	.01965	.00013	.00012	.00022
%RSD	137.45	26.201	84.768	99.349	9.2957	292.70	26.947	352.41	6.1771

#1	-0.00213	.00010	-0.00173	-0.00011	.00185	.02060	-0.00060	-0.00005	-0.00370
#2	-0.00003	.00014	-0.00043	-0.00061	.00211	-0.00718	-0.00040	.00012	-0.00339

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3275.7	54661.	6561.1
Stddev	15.4	88.	5.5
%RSD	.46905	.16112	.08456

#1	3286.6	54724.	6557.2
#2	3264.8	54599.	6565.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04827	1.9664	.94338	.94411	1.9464	.04838	1.8642	48.781	.09530
Stddev	.00056	.0043	.00530	.00064	.0024	.00014	.0023	.026	.00015
%RSD	1.1556	.21969	.56195	.06782	.12554	.28095	.12450	.05424	.15541

#1	.04867	1.9695	.94713	.94456	1.9447	.04848	1.8658	48.762	.09520
#2	.04788	1.9634	.93963	.94365	1.9481	.04828	1.8625	48.799	.09541

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48693	F .17879	.24318	1.0224	49.938	.98816	49.620	.49484	.99943
Stddev	.00093	.00027	.00138	.0087	.116	.00015	.003	.00137	.00120
%RSD	.19172	.15247	.56676	.85056	.23296	.01492	.00632	.27773	.12014

#1	.48759	.17860	.24416	1.0163	49.856	.98827	49.622	.49387	.99858
#2	.48627	.17899	.24221	1.0286	50.021	.98806	49.618	.49581	1.0003

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.124	.48566	9.7031	.48002	1.8715	.47269	1.8681	10.046	21.499
Stddev	.083	.00117	.0203	.00058	.0167	.00029	.0100	.073	.156
%RSD	.16137	.24026	.20914	.12128	.89050	.06197	.53412	.72356	.72356

#1	51.066	.48484	9.6887	.48044	1.8597	.47290	1.8610	9.9951	21.389
#2	51.182	.48649	9.7174	.47961	1.8833	.47248	1.8751	10.098	21.609

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9284	.96880	.97405	.97780	1.8907	2.0330	.49232	.50833	.46768
Stddev	.0086	.00216	.00215	.00045	.0092	.0498	.00055	.00392	.00215
%RSD	.44674	.22288	.22098	.04650	.48624	2.4517	.11104	.77080	.45989

#1	1.9224	.96727	.97557	.97748	1.8842	1.9977	.49194	.50556	.46616
#2	1.9345	.97033	.97253	.97812	1.8972	2.0682	.49271	.51110	.46920

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3161.2	52389.	6445.1
Stddev	5.9	321.	12.0
%RSD	.18734	.61221	.18612

#1	3157.0	52616.	6453.6
#2	3165.3	52163.	6436.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04916	1.9983	.96290	.96453	1.9831	.04952	1.8954	49.946	.09749
Stddev	.00033	.0024	.00225	.00118	.0004	.00015	.0045	.084	.00008
%RSD	.67691	.12142	.23367	.12231	.01915	.30629	.23585	.16834	.08169

#1	.04940	2.0000	.96449	.96369	1.9834	.04963	1.8922	50.006	.09755
#2	.04893	1.9966	.96131	.96536	1.9829	.04941	1.8986	49.887	.09744

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49595	F .18259	.24545	.98892	51.057	1.0110	50.377	.50305	1.0200
Stddev	.00157	.00115	.00004	.01136	.090	.0025	.098	.00010	.0010
%RSD	.31708	.63039	.01585	1.1491	.17726	.25104	.19450	.01985	.09456

#1	.49706	.18178	.24548	.99695	50.993	1.0092	50.446	.50312	1.0207
#2	.49484	.18340	.24542	.98088	51.121	1.0128	50.308	.50298	1.0193

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.460	.49415	9.9144	.48746	1.9106	.48090	1.9102	10.168	21.760
Stddev	.024	.00058	.0022	.00204	.0068	.00034	.0050	.014	.030
%RSD	.04713	.11725	.02238	.41830	.35633	.07168	.26184	.13703	.13703

#1	51.443	.49374	9.9160	.48890	1.9058	.48114	1.9137	10.158	21.739
#2	51.477	.49456	9.9128	.48602	1.9154	.48065	1.9067	10.178	21.781

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9619	.98794	.99134	.99424	1.9233	2.0260	.50217	.51400	.47053
Stddev	.0052	.00063	.00158	.00061	.0028	.0259	.00105	.00679	.00327
%RSD	.26692	.06365	.15925	.06168	.14696	1.2802	.20863	1.3207	.69561

#1	1.9656	.98839	.99246	.99467	1.9213	2.0444	.50142	.50920	.47284
#2	1.9582	.98750	.99023	.99380	1.9253	2.0077	.50291	.51880	.46821

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3159.6	52460.	6360.8
Stddev	9.5	79.	45.5
%RSD	.30119	.15149	.71518

#1	3152.9	52404.	6328.6
#2	3166.4	52517.	6393.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0016	.05700	.01023	W 14.051	.35974	-0.0015	.00030	435.36	-0.0025
Stddev	.00043	.00026	.00292	.085	.00074	.00004	.00209	10.41	.00029
%RSD	267.62	.45290	28.535	.60560	.20682	25.852	703.60	2.3914	113.42

#1	-.00046	.05681	.01230	13.991	.36027	-.00012	.00178	442.73	-.00046
#2	.00014	.05718	.00817	14.111	.35922	-.00018	-.00118	428.00	-.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.01000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00391	.01435	.00584	1.4978	W 209.60	.16428	147.21	.11119	.04380
Stddev	.00028	.00010	.00070	.0148	.53	.00356	.36	.00023	.00003
%RSD	7.2052	.66850	11.949	.98739	.25448	2.1668	.24446	.20797	.07158

#1	.00411	.01442	.00534	1.4874	209.98	.16176	146.95	.11103	.04377
#2	.00371	.01428	.00633	1.5083	209.22	.16679	147.46	.11135	.04382

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1481.8	.04764	W 2.1666	.00010	F 251.22	.03190	-.00122	26.235	56.144
Stddev	3.3	.00088	.0121	.00097	1.01	.00356	.00211	.241	.516
%RSD	.22376	1.8451	.55648	997.61	.40021	11.154	172.84	.91932	.91932

#1	1484.1	.04826	2.1580	-.00059	250.51	.02939	.00027	26.065	55.779
#2	1479.5	.04702	2.1751	.00078	251.93	.03442	-.00271	26.406	56.509

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00		2.0000		200.00				
Low Limit	11.000		-1.0000		-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00080	4.5229	-.00055	.00607	-.00450	-.00666	.00239	.08937	-.00369
Stddev	.00032	.0082	.00099	.00021	.00415	.04171	.00102	.00011	.00094
%RSD	39.555	.18180	179.50	3.5046	92.367	626.32	42.725	.12441	25.625

#1	-.00103	4.5287	-.00125	.00622	-.00156	.02283	.00311	.08944	-.00436
#2	-.00058	4.5170	.00015	.00591	-.00744	-.03615	.00167	.08929	-.00302

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2814.1	47184.	6224.8
Stddev	7.8	18.	69.2
%RSD	.27734	.03772	1.1110

#1	2819.6	47197.	6175.9
#2	2808.6	47172.	6273.7

Sample Name: 280-69781-N-1-D SD@5 Acquired: 6/1/2015 14:52:53 Type: Unk

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment: 279426 200.7 (Ca Fe Na SiO2)

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0021	.01122	-0.00148	2.7322	.05761	-0.0006	.00182	70.385	.00013
Stddev	.00036	.00005	.00515	.1230	.00136	.00004	.00336	1.313	.00003
%RSD	171.66	.47713	347.58	4.5003	2.3620	73.653	184.82	1.8653	24.779

#1	.00005	.01118	.00216	2.6452	.05664	-0.0009	.00420	69.456	.00011
#2	-.00047	.01125	-.00512	2.8191	.05857	-0.0003	-.00056	71.313	.00016

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00073	.00304	.00318	.24588	32.566	.02947	25.291	.01905	.00653
Stddev	.00019	.00021	.00016	.00953	.493	.00050	.478	.00045	.00031
%RSD	25.523	7.0479	4.8712	3.8765	1.5149	1.6928	1.8885	2.3769	4.6932

#1	.00087	.00289	.00307	.23914	32.217	.02912	24.954	.01873	.00632
#2	.00060	.00320	.00329	.25262	32.915	.02982	25.629	.01937	.00675

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	231.45	.01149	.37625	.00514	44.055	.00469	-.00284	4.0209	8.6047
Stddev	4.33	.00013	.01619	.00110	2.050	.00230	.00258	.0981	.2099
%RSD	1.8728	1.1686	4.3024	21.399	4.6521	49.000	91.028	2.4397	2.4397

#1	228.39	.01158	.36480	.00436	42.606	.00631	-.00466	3.9515	8.4562
#2	234.52	.01139	.38769	.00592	45.504	.00306	-.00101	4.0902	8.7531

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00365	.70732	-.00147	.00005	-.00516	-.01973	-.00109	.01528	-.00278
Stddev	.00051	.01295	.00018	.00027	.00111	.00312	.00069	.00052	.00050
%RSD	14.033	1.8312	11.891	543.71	21.595	15.813	63.280	3.4066	18.149

#1	.00329	.69816	-.00135	.00024	-.00595	-.02194	-.00158	.01565	-.00313
#2	.00401	.71648	-.00160	-.00014	-.00437	-.01753	-.00060	.01491	-.00242

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2998.8	49686.	6189.7
Stddev	2.6	32.	31.5
%RSD	.08739	.06414	.50819

#1	3000.6	49664.	6167.5
#2	2996.9	49709.	6212.0

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05593	1.9920	W 2.8631	1.0936	W 15.679	2.4498	.05115	F 1.9724	493.78
Stddev	.00007	.0137	.0141	.0084	.064	.0053	.00009	.0027	1.84
%RSD	.13255	.68796	.49279	.76420	.40810	.21569	.17968	.13889	.37232

#1	.05588	2.0017	2.8731	1.0995	15.724	2.4535	.05121	1.9744	495.08
#2	.05599	1.9824	2.8531	1.0877	15.633	2.4460	.05108	1.9705	492.48

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00		10.000			.10000	
Low Limit			3.2000		-.01000			-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10596	.49244	W .17259	.26820	2.5320	W 271.81	1.2830	204.38	.63442
Stddev	.00049	.00255	.00012	.00049	.0066	.96	.0010	.57	.00124
%RSD	.46131	.51789	.07194	.18094	.26266	.35497	.07534	.27814	.19604

#1	.10631	.49425	.17250	.26854	2.5367	272.49	1.2823	203.98	.63354
#2	.10561	.49064	.17267	.26786	2.5272	271.13	1.2837	204.79	.63530

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit			.10000			100.00			
Low Limit			-.01000			-.50000			

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0946	W 1595.3	.53053	W 13.604	.46111	F 263.50	.55326	2.0912	34.886
Stddev	.0033	.8	.00215	.022	.00701	1.32	.00106	.0048	.174
%RSD	.30049	.04914	.40523	.16102	1.5209	.50042	.19189	.22881	.49811

#1	1.0969	1595.8	.53205	13.620	.46607	264.44	.55251	2.0946	35.009
#2	1.0923	1594.7	.52901	13.589	.45615	262.57	.55401	2.0878	34.763

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		500.00		2.0000		200.00			
Low Limit		11.000		-1.0000		-.20000			

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	74.657	1.9179	W 5.6676	1.0547	1.0622	1.6519	2.0842	.54442	.61659
Stddev	.372	.0033	.0220	.0000	.0019	.0020	.0205	.00047	.00106
%RSD	.49811	.17273	.38835	.00316	.17864	.12025	.98378	.08610	.17110

#1	74.920	1.9155	5.6831	1.0548	1.0608	1.6533	2.0697	.54475	.61584
#2	74.394	1.9202	5.6520	1.0547	1.0635	1.6505	2.0987	.54409	.61733

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			5.0000						
Low Limit			-.01000						

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.48359
Stddev	.00051
%RSD	.10457

#1	.48394
#2	.48323

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69781-N-1-E MS Acquired: 6/1/2015 14:55:31 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 279426 200.7 (Ca Fe Na SiO2)

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2670.3	44789.	6057.0
Stddev	9.5	384.	21.7
%RSD	.35541	.85764	.35771
#1	2663.5	45060.	6041.7
#2	2677.0	44517.	6072.3

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05657	1.9918	W 2.8925	1.1019	W 15.840	2.4433	.05107	F 1.9806	494.55
Stddev	.00002	.0009	.0083	.0077	.034	.0042	.00002	.0068	.93
%RSD	.04405	.04693	.28723	.70007	.21654	.17207	.04294	.34202	.18800

#1	.05655	1.9924	2.8866	1.1073	15.864	2.4462	.05109	1.9854	495.21
#2	.05658	1.9911	2.8983	1.0964	15.815	2.4403	.05106	1.9758	493.89

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00		10.000			.10000	
Low Limit			3.2000		-.01000			-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10568	.49299	W .17496	.26771	2.5323	W 272.53	1.2791	203.14	.63146
Stddev	.00041	.00126	.00215	.00025	.0039	.54	.0025	.47	.00105
%RSD	.38451	.25553	1.2274	.09436	.15221	.19994	.19627	.23338	.16693

#1	.10596	.49388	.17648	.26753	2.5350	272.91	1.2809	202.81	.63072
#2	.10539	.49210	.17344	.26788	2.5296	272.14	1.2773	203.48	.63221

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit			.10000			100.00			
Low Limit			-.01000			-.50000			

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.1003	W 1599.9	.53092	W 13.641	.45912	F 265.18	.55890	2.0895	35.084
Stddev	.0034	3.0	.00016	.078	.00100	.35	.01366	.0092	.059
%RSD	.30861	.18760	.03090	.57058	.21692	.13142	2.4433	.44063	.16688

#1	1.1027	1602.0	.53103	13.696	.45842	265.42	.56856	2.0960	35.126
#2	1.0979	1597.8	.53080	13.586	.45983	264.93	.54925	2.0829	35.043

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		500.00		2.0000		200.00			
Low Limit		11.000		-1.0000		-.20000			

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	75.080	1.9250	W 5.7252	1.0468	1.0625	1.6511	2.0886	.54349	.61057
Stddev	.125	.0107	.0104	.0058	.0002	.0141	.0041	.00155	.00046
%RSD	.16688	.55407	.18179	.55710	.01484	.85404	.19446	.28442	.07606

#1	75.169	1.9325	5.7178	1.0427	1.0624	1.6611	2.0915	.54239	.61090
#2	74.992	1.9175	5.7325	1.0509	1.0626	1.6411	2.0857	.54458	.61024

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			5.0000						
Low Limit			-.01000						

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.48429
Stddev	.00164
%RSD	.33812

#1	.48545
#2	.48313

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69781-N-1-F MSD Acquired: 6/1/2015 14:59:19 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 279426 200.7 (Ca Fe Na SiO2)

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2693.3	44996.	5998.9
Stddev	9.3	65.	2.0
%RSD	.34430	.14528	.03382
#1	2699.9	45043.	5997.4
#2	2686.8	44950.	6000.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0101	.04756	.01336	W 14.466	.38012	-0.00007	.00128	427.58	-0.00038
Stddev	.00028	.00102	.00634	.045	.00911	.00010	.00098	14.97	.00036
%RSD	28.167	2.1460	47.438	.31434	2.3974	139.06	77.152	3.5019	95.383

#1	-0.00081	.04828	.01784	14.434	.38656	.00000	.00197	438.17	-0.00063
#2	-0.00121	.04684	.00888	14.498	.37368	-0.00014	.00058	416.99	-0.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.01000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00400	.01417	.00520	1.4515	W 207.02	.16675	147.92	.10853	.04272
Stddev	.00027	.00002	.00034	.0388	5.09	.00353	.42	.00031	.00101
%RSD	6.8156	.13727	6.5829	2.6700	2.4580	2.1152	.28091	.28776	2.3694

#1	.00381	.01415	.00544	1.4789	210.61	.16924	148.21	.10875	.04343
#2	.00419	.01418	.00496	1.4241	203.42	.16425	147.62	.10831	.04200

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1435.5	.04898	1.6228	.00043	F 253.36	.03283	.00077	25.712	55.024
Stddev	35.2	.00126	.0069	.00016	1.00	.00156	.00207	.594	1.271
%RSD	2.4525	2.5722	.42510	36.492	.39332	4.7614	269.72	2.3098	2.3098

#1	1460.4	.04987	1.6277	.00054	252.66	.03393	-0.00070	26.132	55.923
#2	1410.6	.04809	1.6180	.00032	254.07	.03172	.00223	25.292	54.126

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00				200.00				
Low Limit	11.000				-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0141	4.5235	-0.0139	.00421	-0.00670	W -0.05104	.00163	.03914	-0.0362
Stddev	.00038	.1068	.00073	.00030	.00073	.04988	.00020	.00013	.00215
%RSD	26.863	2.3598	52.625	7.1945	10.856	97.716	12.456	.32105	59.345

#1	-0.0168	4.5990	-0.0191	.00400	-0.00722	-0.01577	.00177	.03923	-0.00514
#2	-0.0114	4.4480	-0.0087	.00443	-0.00619	-0.08631	.00148	.03905	-0.00210

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2693.2	45436.	6121.4
Stddev	2.9	186.	202.4
%RSD	.10720	.40886	3.3063

#1	2695.2	45304.	5978.3
#2	2691.2	45567.	6264.5

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00331	51.162	-.00232	.03860	.00099	.00002	1.0086	.04539	-.00025	-.00045	.00058
Stddev	.00054	.846	.00279	.00103	.00020	.00001	.0022	.00150	.00003	.00010	.00013
%RSD	16.168	1.6537	120.62	2.6779	20.426	74.207	.22140	3.3127	11.458	21.199	22.722

#1	.00294	51.760	-.00034	.03933	.00085	.00003	1.0070	.04433	-.00023	-.00052	.00068
#2	.00369	50.564	-.00429	.03787	.00114	.00001	1.0101	.04646	-.00027	-.00039	.00049

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00016	50.396	.54201	.00450	.06257	-.00154	-.00062	252.81	.00217	-.00290	.00032
Stddev	.00000	.711	.04329	.00011	.00434	.00004	.00015	4.06	.00019	.00205	.00060
%RSD	.62088	1.4107	7.9868	2.3900	6.9338	2.3992	23.976	1.6066	8.9246	70.753	185.22

#1	-.00016	50.898	.57262	.00458	.05950	-.00157	-.00051	255.68	.00230	-.00145	-.00010
#2	-.00016	49.893	.51140	.00443	.06563	-.00151	-.00072	249.94	.00203	-.00435	.00075

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.9043	-.00814	.00325	.01238	.02649	-.00385	.00049	5.1333	-.01263	.00034	W 10.692
Stddev	.0101	.00119	.00376	.00342	.00733	.00144	.00003	.0030	.00067	.00175	.007
%RSD	.20539	14.559	115.71	27.661	27.661	37.377	5.4801	.05804	5.2881	520.67	.06795

#1	4.8971	-.00730	.00592	.01480	.03167	-.00487	.00051	5.1354	-.01216	-.00090	10.697
#2	4.9114	-.00898	.00059	.00996	.02131	-.00283	.00047	5.1312	-.01310	.00157	10.687

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value											10.000
Range											5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00248	.00069	-.14528
Stddev	.00044	.00018	.00114
%RSD	17.824	26.453	.78576

#1	.00279	.00056	-.14447
#2	.00217	.00082	-.14609

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2933.6	47993.	5934.4
Stddev	9.7	128.	103.5
%RSD	.33142	.26619	1.7436

#1	2940.4	47903.	5861.3
#2	2926.7	48083.	6007.6

Sample Name: CCV-3296664 Acquired: 6/1/2015 15:08:53 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52144	F .55568	.99775	.53285	.50351	.50395	-.00154	5.1796	.51385	.52033	.45514	.50356
Stddev	.00282	.00096	.00021	.00722	.00012	.00046	.00029	.0193	.00372	.00051	.00191	.00133
%RSD	.54096	.17258	.02105	1.3549	.02295	.09184	19.014	.37208	.72308	.09764	.41933	.26358

#1	.51945	.55501	.99760	.52775	.50359	.50362	-.00133	5.1933	.51122	.51997	.45379	.50450
#2	.52344	.55636	.99790	.53796	.50343	.50427	-.00174	5.1660	.51648	.52069	.45649	.50262

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value		.50000										
Range		10.490%										

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.5764	51.924	1.0367	20.905	.53239	.50538	5.4352	.52223	1.0116	1.0125	-.00578	.98078
Stddev	.0069	.022	.0039	.022	.00069	.00043	.0267	.00100	.0057	.0075	.00017	.01165
%RSD	.26581	.04155	.37220	.10741	.12971	.08518	.49200	.19220	.56885	.73615	3.0090	1.1879

#1	2.5813	51.908	1.0395	20.889	.53190	.50507	5.4541	.52152	1.0075	1.0072	-.00566	.97254
#2	2.5716	51.939	1.0340	20.921	.53288	.50568	5.4163	.52294	1.0157	1.0178	-.00591	.98902

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.96401	5.2917	11.324	1.0191	.50310	-.00339	.52862	1.0161	-.03589	.53454	F .55394	.50887
Stddev	.01197	.0068	.015	.0004	.00051	.00113	.00214	.0078	.02071	.00069	.00341	.00285
%RSD	1.2416	.12846	.12846	.04352	.10154	33.301	.40552	.76920	57.705	.12848	.61501	.55909

#1	.95555	5.2869	11.314	1.0188	.50346	-.00259	.52711	1.0106	-.05053	.53405	.55153	.51088
#2	.97248	5.2965	11.334	1.0194	.50274	-.00419	.53014	1.0217	-.02124	.53503	.55635	.50686

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Fail	Chk Pass				
Value											.50000	
Range											10.490%	

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3007.6	49550.	6003.1
Stddev	1.6	25.	2.3
%RSD	.05214	.04999	.03884

#1	3006.5	49532.	6004.7
#2	3008.8	49567.	6001.4

Sample Name: CCB Acquired: 6/1/2015 15:11:22 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W -0.0107	-0.0058	-0.00275	.02384	.00074	-0.00002	-0.00030	.00233	-0.00013	.00027	.00034
Stddev	.00016	.00001	.00424	.00094	.00029	.00014	.00188	.00476	.00006	.00018	.00017
%RSD	14.593	1.1851	154.21	3.9281	38.930	752.27	623.38	203.96	48.459	68.612	50.737

#1	-0.0118	-0.0057	.00025	.02450	.00094	.00008	.00103	.00570	-0.0008	.00014	.00022
#2	-0.0096	-0.0058	-0.00575	.02317	.00054	-0.00012	-0.00163	-0.00103	-0.00017	.00040	.00046

Check ?	Chk Warn	Chk Pass									
High Limit	.00100										
Low Limit	-.00100										

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00106	.00410	.40292	.00654	-0.00380	.00008	.00005	.20027	-0.00006	-0.00437	-0.00037
Stddev	.00051	.00100	.02324	.00008	.00107	.00013	.00009	.00122	.00021	.00137	.00058
%RSD	48.262	24.491	5.7670	1.2170	28.142	168.08	184.26	.60743	328.80	31.227	157.25

#1	.00070	.00339	.41935	.00660	-.00456	-.00001	.00011	.20113	.00008	-.00341	.00004
#2	.00143	.00481	.38649	.00649	-.00304	.00017	-.00001	.19940	-.00021	-.00534	-.00078

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.01148	.00050	F -0.00692	.01921	.04112	-0.00100	.00009	.00014	-0.00040	.00159	-0.00339
Stddev	.00252	.00135	.00013	.00611	.01307	.00036	.00003	.00048	.00010	.00092	.03033
%RSD	21.933	268.58	1.9059	31.795	31.795	35.691	30.690	339.40	25.570	58.209	893.78

#1	-0.00970	.00146	-0.00702	.02353	.05036	-0.00075	.00007	-0.00020	-0.00033	.00224	.01805
#2	-0.01327	-0.00045	-0.00683	.01489	.03187	-0.00126	.00011	.00048	-0.00048	.00093	-.02484

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass							
High Limit			.00500								
Low Limit			-.00500								

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	-0.00079	-0.00053	-0.00391
Stddev	.00046	.00018	.00140
%RSD	58.200	33.642	35.746

#1	-0.00112	-0.00040	-0.00292
#2	-0.00047	-0.00065	-0.00490

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3054.8	50807.	6080.0
Stddev	6.4	59.	22.7
%RSD	.20894	.11560	.37300

#1	3050.3	50766.	6064.0
#2	3059.3	50849.	6096.0

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01030	.11573	.01256	.12345	.01074	.00090	.10839	.21999	.00519	.01089	.00976	.01670
Stddev	.00029	.00164	.00323	.00220	.00036	.00008	.00147	.01009	.00008	.00022	.00006	.00001
%RSD	2.8061	1.4189	25.712	1.7796	3.3919	8.8322	1.3594	4.5857	1.5671	1.9790	.65198	.08800

#1	.01051	.11689	.01028	.12500	.01048	.00084	.10943	.21286	.00525	.01074	.00981	.01669
#2	.01010	.11457	.01484	.12189	.01100	.00095	.10735	.22713	.00514	.01104	.00972	.01671

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10356	3.5409	F .01573	.22649	.01139	.01984	1.2223	.04315	3.0207	.00932	-.01059	.00931
Stddev	.00364	.1144	.00028	.00050	.00001	.00059	.0205	.00099	.0323	.00052	.00082	.00082
%RSD	3.5151	3.2310	1.7697	.21925	.05450	2.9665	1.6806	2.2862	1.0707	5.6256	7.7503	8.8087

#1	.10099	3.4600	.01592	.22685	.01139	.02026	1.2078	.04385	3.0436	.00895	-.01117	.00873
#2	.10614	3.6218	.01553	.22614	.01139	.01943	1.2369	.04245	2.9978	.00969	-.01001	.00989

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .00974	.52841	1.1308	.10576	.01047	.01431	.00989	.01841	F .08666	.00996	.02487	F .00999
Stddev	.00341	.00499	.0107	.00370	.00027	.00061	.00030	.00060	.01500	.00007	.00007	.00029
%RSD	35.024	.94341	.94341	3.5008	2.5619	4.2863	3.0694	3.2440	17.307	.67753	.29896	2.9422

#1	.01215	.52488	1.1232	.10838	.01028	.01387	.00968	.01883	.07605	.01001	.02482	.01020
#2	.00733	.53193	1.1383	.10314	.01066	.01474	.01011	.01799	.09726	.00992	.02493	.00978

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail						
Value	.01500								.06000			.01500
Range	-30.000%								30.000%			-30.000%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3075.5	50839.	6229.5
Stddev	2.4	160.	111.4
%RSD	.07834	.31505	1.7881

#1	3073.8	50726.	6308.3
#2	3077.2	50952.	6150.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00016	.00416	.02705	W 14.255	.29595	-0.00007	-0.00057	430.09	-0.00034
Stddev	.00014	.00066	.00067	.022	.00204	.00007	.00253	.36	.00012
%RSD	85.937	15.847	2.4646	.15412	.68917	99.734	442.46	.08275	34.213

#1	-0.00006	.00462	.02752	14.271	.29739	-0.00002	.00122	430.34	-0.00042
#2	-0.00026	.00369	.02658	14.240	.29450	-0.00011	-.00236	429.83	-0.00026

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.01000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00439	.01257	.00618	.28837	W 207.08	.16369	148.28	.14957	.05084
Stddev	.00012	.00009	.00075	.00415	1.02	.00018	.79	.00109	.00041
%RSD	2.6979	.74940	12.169	1.4400	.49383	.11283	.53521	.72958	.80227

#1	.00447	.01264	.00671	.29130	207.80	.16356	147.72	.15034	.05113
#2	.00430	.01251	.00565	.28543	206.36	.16382	148.84	.14880	.05055

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-.50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1427.0	.05145	W 3.5087	-0.00026	F 253.92	.03262	-0.00044	26.472	56.650
Stddev	8.1	.00061	.0315	.00201	.44	.00032	.00047	.011	.024
%RSD	.57109	1.1769	.89850	768.36	.17230	.99445	107.40	.04262	.04262

#1	1432.8	.05188	3.5309	-.00168	254.23	.03285	-0.00011	26.480	56.667
#2	1421.3	.05102	3.4864	.00116	253.61	.03239	-0.00077	26.464	56.632

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00		2.0000		200.00				
Low Limit	11.000		-1.0000		-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00007	4.3922	.00135	-0.00016	-0.00955	-0.04141	.01523	.04441	-0.0419
Stddev	.00210	.0304	.00040	.00015	.00322	.00058	.00043	.00160	.00044
%RSD	2888.8	.69307	29.550	93.652	33.777	1.4088	2.7956	3.6042	10.394

#1	.00156	4.4137	.00107	-.00005	-.01183	-.04099	.01493	.04328	-.00388
#2	-.00142	4.3706	.00163	-.00026	-.00727	-.04182	.01553	.04555	-.00450

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2648.9	43861.	5803.1
Stddev	3.6	230.	35.8
%RSD	.13751	.52525	.61715

#1	2651.4	44024.	5828.5
#2	2646.3	43698.	5777.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0027	.15961	.05239	W 14.770	.94281	-0.0010	.00445	449.24	-0.0032
Stddev	.00007	.00001	.01025	.076	.00996	.00004	.00124	6.76	.00005
%RSD	25.566	.00346	19.563	.51223	1.0567	43.048	27.854	1.5050	14.258

#1	-0.0032	.15960	.05964	14.823	.93576	-0.0007	.00357	444.46	-0.0029
#2	-0.0022	.15961	.04514	14.716	.94985	-0.0013	.00532	454.02	-0.0035

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.01000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00599	.02417	.00865	28.549	W 208.87	.16860	153.73	1.2080	.05720
Stddev	.00021	.00073	.00006	.298	2.54	.00260	.53	.0018	.00043
%RSD	3.4753	3.0051	.74136	1.0455	1.2146	1.5420	.34338	.14623	.75128

#1	.00614	.02366	.00869	28.338	207.07	.16677	154.10	1.2092	.05750
#2	.00585	.02468	.00860	28.760	210.66	.17044	153.35	1.2067	.05689

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1227.1	.05286	1.1489	.00094	F 253.00	.03382	.00473	28.231	60.415
Stddev	14.6	.00011	.0064	.00205	.33	.00120	.00386	.183	.392
%RSD	1.1886	.19924	.55827	218.05	.12964	3.5597	81.526	.64899	.64899

#1	1216.8	.05279	1.1534	.00239	253.23	.03467	.00200	28.102	60.137
#2	1237.4	.05294	1.1443	-.00051	252.77	.03297	.00746	28.361	60.692

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00				200.00				
Low Limit	11.000				-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00028	4.7742	.00010	.02605	W -.01123	-.04197	.02109	.03488	-.00438
Stddev	.00135	.0502	.00271	.00004	.00652	.04803	.00102	.00112	.00035
%RSD	486.44	1.0517	2675.0	.14951	58.039	114.43	4.8589	3.2136	7.9644

#1	.00123	4.7387	-.00182	.02602	-.00662	-.00801	.02037	.03567	-.00463
#2	-.00067	4.8097	.00202	.02607	-.01584	-.07593	.02182	.03409	-.00413

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000				
Low Limit					-.01000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2661.9	44013.	5843.2
Stddev	28.9	188.	89.4
%RSD	1.0859	.42709	1.5299

#1	2641.4	43881.	5906.5
#2	2682.3	44146.	5780.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00015	.07818	.04925	W 16.291	1.3605	-0.0008	.00445	W 553.63	-0.00074
Stddev	.00032	.00020	.01063	.012	.0208	.00003	.00138	4.31	.00049
%RSD	214.56	.25239	21.576	.07477	1.5302	29.910	30.936	.77805	66.495

#1	.00038	.07804	.04174	16.282	1.3458	-0.0007	.00348	550.58	-0.0039
#2	-0.00008	.07832	.05677	16.299	1.3752	-0.00010	.00542	556.68	-0.0108

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit				10.000				500.00	
Low Limit				-.01000				-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00359	.01934	.00793	22.119	W 278.19	.16597	187.11	1.5284	.03890
Stddev	.00054	.00017	.00015	.378	4.48	.00027	.24	.0002	.00110
%RSD	15.180	.86406	1.8916	1.7082	1.6092	.16225	.13066	.01074	2.8312

#1	.00397	.01922	.00803	21.851	275.03	.16578	186.93	1.5285	.03968
#2	.00320	.01945	.00782	22.386	281.36	.16616	187.28	1.5283	.03812

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-.50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1443.6	.04965	.68541	.00117	F 259.08	.02902	.00076	27.987	59.893
Stddev	22.1	.00014	.00198	.00019	.16	.00010	.00584	.547	1.170
%RSD	1.5278	.28028	.28945	16.643	.06343	.33940	766.03	1.9535	1.9535

#1	1428.0	.04955	.68682	.00130	259.20	.02908	.00489	27.601	59.065
#2	1459.2	.04975	.68401	.00103	258.97	.02895	-.00337	28.374	60.720

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00				200.00				
Low Limit	11.000				-.20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00040	W 5.0860	-0.00065	.01352	-0.00949	-0.01642	.00720	.00997	-0.00312
Stddev	.00097	.0796	.00072	.00012	.00036	.06401	.00071	.00130	.00089
%RSD	241.31	1.5659	110.86	.90900	3.7872	389.93	9.8561	13.048	28.385

#1	.00109	5.0297	-.00116	.01361	-.00923	.02885	.00771	.00905	-.00250
#2	-.00028	5.1423	-.00014	.01343	-.00974	-.06168	.00670	.01089	-.00375

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		5.0000							
Low Limit		-.01000							

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2630.5	44091.	6008.5
Stddev	2.9	102.	138.8
%RSD	.11028	.23094	2.3100

#1	2628.4	44163.	6106.6
#2	2632.5	44019.	5910.3

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05739	36.973	1.3990	.49704	1.0825	.01267	F .35967	290.93	1.2664
Stddev	.00001	.774	.0541	.01116	.0198	.00012	.00938	3.35	.0428
%RSD	.01573	2.0940	3.8664	2.2458	1.8289	.93552	2.6076	1.1521	3.3789

#1	.05739	36.426	1.3607	.48914	1.0685	.01259	.35303	288.56	1.2361
#2	.05740	37.521	1.4372	.50493	1.0965	.01276	.36630	293.30	1.2966

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2.6546	F 4.0625	6.6783	182.86	19.080	.08615	57.371	W 11.985	W 13.046
Stddev	.0825	.1455	.1008	3.92	.223	.00481	1.047	.312	.411
%RSD	3.1064	3.5825	1.5097	2.1438	1.1692	5.5882	1.8245	2.6028	3.1514

#1	2.5963	3.9596	6.6070	180.09	18.923	.08274	56.630	11.764	12.755
#2	2.7130	4.1654	6.7496	185.63	19.238	.08955	58.111	12.205	13.337

Check ?	Chk Warn	Chk Fail	Chk Pass	Chk Warn	Chk Warn				
High Limit	1.0000	1.0000						10.000	5.0000
Low Limit	-.01000	-.02000						-.01000	-.01000

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	236.40	1.6244	W 4.7893	W 21.897	104.08	.45151	.10190	33.201	71.050
Stddev	3.42	.0496	.1992	.665	3.58	.01838	.00581	.368	.787
%RSD	1.4480	3.0554	4.1593	3.0357	3.4380	4.0699	5.7043	1.1070	1.1070

#1	233.98	1.5893	4.6485	21.427	101.55	.43851	.09779	32.941	70.494
#2	238.82	1.6595	4.9302	22.367	106.61	.46450	.10601	33.461	71.607

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass				
High Limit			2.0000	10.000					
Low Limit			-1.0000	-.00300					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 3.1345	1.3876	.03890	.88883	.00819	F -.13774	.26275	F 87.290	.02607
Stddev	.1261	.0257	.00050	.01746	.00306	.00971	.00442	1.662	.00125
%RSD	4.0228	1.8497	1.2953	1.9643	37.432	7.0487	1.6814	1.9039	4.8039

#1	3.0453	1.3695	.03855	.87649	.01035	-.14460	.25963	86.115	.02518
#2	3.2236	1.4058	.03926	.90118	.00602	-.13087	.26587	88.465	.02696

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass
High Limit	2.0000					50.000		50.000	
Low Limit	-.05000					-.10000		-.02000	

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2891.1	47809.	5961.8
Stddev	11.3	190.	1.4
%RSD	.38950	.39808	.02294

#1	2883.1	47944.	5960.8
#2	2899.1	47674.	5962.7

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00320	50.438	.00186	.03072	.00104	.00004	.95934	.05359	-.00015	-.00027	.00084
Stddev	.00039	.574	.00283	.00102	.00062	.00009	.00150	.02075	.00010	.00013	.00003
%RSD	12.143	1.1378	152.18	3.3168	60.027	210.65	.15595	38.714	66.793	45.929	3.3448

#1	.00293	50.033	.00386	.03144	.00060	-.00002	.96040	.06826	-.00022	-.00036	.00086
#2	.00348	50.844	-.00014	.03000	.00147	.00011	.95828	.03892	-.00008	-.00018	.00082

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00043	49.425	.42096	.00415	.04947	-.00138	.00305	248.64	.00214	-.00110	-.00025
Stddev	.00048	.931	.04367	.00107	.00318	.00000	.00080	3.73	.00022	.00049	.00414
%RSD	110.30	1.8845	10.374	25.646	6.4288	.04749	26.232	1.4983	10.397	44.190	1684.5

#1	-.00009	48.767	.39008	.00340	.04723	-.00138	.00248	246.00	.00230	-.00076	.00268
#2	-.00077	50.084	.45184	.00491	.05172	-.00138	.00361	251.27	.00198	-.00145	-.00317

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.7212	-.00666	.00136	.09217	.19723	-.00372	.00052	5.0156	-.01242	.00120	10.328
Stddev	.0424	.00409	.00138	.00924	.01977	.00091	.00001	.0092	.00018	.00123	.026
%RSD	.89897	61.381	101.44	10.022	10.022	24.572	2.1080	.18390	1.4097	102.15	.25314

#1	4.6912	-.00377	.00038	.08563	.18326	-.00437	.00053	5.0222	-.01255	.00207	10.347
#2	4.7512	-.00954	.00233	.09870	.21121	-.00307	.00051	5.0091	-.01230	.00033	10.310

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	5.0000										
Range	-5.0000%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00181	.00102	-.13752
Stddev	.00016	.00050	.00209
%RSD	9.0129	48.812	1.5163

#1	.00169	.00137	-.13899
#2	.00192	.00067	-.13604

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2935.3	47827.	5782.5
Stddev	2.7	58.	105.3
%RSD	.09268	.12204	1.8217

#1	2937.2	47868.	5857.0
#2	2933.4	47785.	5708.0

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50608	.54005	.96617	.50863	.47985	.48181	-.00032	5.0059	.48968	.51738	F .43807	.48519
Stddev	.00307	.00196	.00575	.00243	.01019	.01090	.00103	.1133	.00193	.00351	.00361	.00112
%RSD	.60648	.36339	.59462	.47737	2.1226	2.2629	326.30	2.2639	.39445	.67916	.82435	.23115

#1	.50825	.54144	.97023	.51034	.47265	.47410	.00041	4.9258	.49105	.51490	.43552	.48599
#2	.50391	.53866	.96211	.50691	.48705	.48952	-.00105	5.0860	.48831	.51987	.44063	.48440

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass					
Value											.50000	
Range											-10.490%	

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.5118	49.961	.98788	20.544	.52390	.49827	5.2332	.51650	.98623	.98779	-.00412	.93888
Stddev	.0447	1.032	.02348	.071	.00000	.00218	.1062	.00284	.00217	.00743	.00332	.00205
%RSD	1.7793	2.0660	2.3773	.34375	.00054	.43724	2.0298	.54902	.21959	.75257	80.631	.21820

#1	2.4802	49.231	.97127	20.594	.52390	.49673	5.1580	.51449	.98470	.98254	-.00646	.94032
#2	2.5434	50.691	1.0045	20.494	.52390	.49981	5.3083	.51850	.98776	.99305	-.00177	.93743

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.92431	5.1513	11.024	.99670	.48134	-.00369	.51317	.99031	.00308	.52044	F .55422	.49029
Stddev	.00190	.1403	.300	.00551	.01020	.00099	.00051	.00566	.00688	.00126	.00193	.01107
%RSD	.20537	2.7230	2.7230	.55240	2.1198	26.854	.09997	.57160	223.34	.24228	.34793	2.2578

#1	.92566	5.0521	10.811	.99281	.47412	-.00440	.51354	.98631	.00795	.52133	.55285	.48246
#2	.92297	5.2505	11.236	1.0006	.48855	-.00299	.51281	.99432	-.00178	.51955	.55558	.49811

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Fail	Chk Pass				
Value											.50000	
Range											10.490%	

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2937.9	47750.	5785.4
Stddev	4.7	41.	109.9
%RSD	.15921	.08683	1.8999

#1	2934.6	47779.	5863.1
#2	2941.2	47721.	5707.7

Sample Name: CCB Acquired: 6/1/2015 15:35:39 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0024	-0.0006	.00112	.02068	.00024	-0.00010	.00338	.00620	-0.00035	.00030	.00018
Stddev	.00019	.00019	.00222	.00053	.00013	.00005	.00210	.00417	.00033	.00003	.00000
%RSD	80.624	319.51	198.73	2.5788	56.250	49.504	61.981	67.250	94.692	9.3034	.59344

#1	-0.00010	-0.00020	.00269	.02106	.00033	-0.00013	.00190	.00325	-0.00012	.00032	.00018
#2	-0.00037	.00008	-0.00045	.02031	.00014	-0.00006	.00486	.00914	-0.00058	.00028	.00018

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00064	.00014	.31664	.00252	.00105	.00012	-0.00009	.16618	-0.00017	-0.00962	-0.00217
Stddev	.00062	.00180	.01497	.00154	.00213	.00002	.00017	.00692	.00018	.00019	.00016
%RSD	97.745	1315.1	4.7288	61.282	203.35	16.351	191.87	4.1666	106.51	2.0170	7.5718

#1	.00107	.00141	.30606	.00143	.00255	.00014	.00003	.16129	-0.00004	-0.00948	-0.00228
#2	.00020	-0.00114	.32723	.00361	-0.00046	.00011	-0.00021	.17108	-0.00030	-0.00976	-0.00205

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.11119	-0.00052	F -.00529	.02513	.05378	-0.00187	.00013	-0.00061	-0.00089	.00072	-0.00069
Stddev	.00264	.00296	.00350	.01533	.03282	.00091	.00007	.00107	.00007	.00225	.00293
%RSD	23.637	563.81	66.208	61.014	61.014	48.782	56.512	175.72	8.1552	312.15	426.15

#1	-0.00932	.00157	-.00776	.01429	.03058	-0.00251	.00018	-0.00137	-0.00094	.00231	-0.00276
#2	-0.01306	-0.00262	-0.00281	.03598	.07699	-0.00122	.00008	.00015	-0.00084	-0.00087	.00138

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass							
High Limit			.00500								
Low Limit			-.00500								

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	-0.00048	-0.00016	-0.00508
Stddev	.00065	.00055	.00204
%RSD	134.74	351.61	40.202

#1	-0.00002	-0.00055	-0.00653
#2	-0.00094	.00023	-0.00364

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2958.5	48179.	5650.8
Stddev	2.6	183.	18.5
%RSD	.08827	.37954	.32705

#1	2956.6	48049.	5663.9
#2	2960.3	48308.	5637.7

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01029	.11278	.01156	.11668	.01051	.00087	.10239	.21996	.00506	.01076	.00923	.01607
Stddev	.00002	.00100	.00019	.00141	.00014	.00013	.00055	.00296	.00017	.00049	.00022	.00049
%RSD	.16091	.89091	1.6243	1.2065	1.2966	15.068	.53807	1.3468	3.2906	4.5171	2.3940	3.0237

#1	.01030	.11349	.01143	.11767	.01061	.00097	.10278	.22206	.00518	.01041	.00907	.01573
#2	.01028	.11207	.01169	.11568	.01041	.00078	.10200	.21787	.00494	.01110	.00939	.01641

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10422	3.5586	.01284	.22752	.01124	.01926	1.2417	.04344	2.8935	.00782	-.00532	.00874
Stddev	.00188	.0023	.00108	.00614	.00003	.00082	.0087	.00047	.0254	.00149	.00254	.00211
%RSD	1.8085	.06580	8.3774	2.6988	.26899	4.2481	.69728	1.0897	.87793	19.052	47.792	24.132

#1	.10289	3.5603	.01360	.23186	.01122	.01984	1.2356	.04378	2.9114	.00676	-.00352	.00725
#2	.10556	3.5570	.01208	.22318	.01126	.01868	1.2479	.04311	2.8755	.00887	-.00712	.01023

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01139	.55412	1.1858	.10091	.01047	.01550	.00958	.01420	F .03768	.01000	.02482	F .00757
Stddev	.00906	.00612	.0131	.00001	.00000	.00035	.00075	.00105	.03166	.00046	.00195	.00146
%RSD	79.484	1.1043	1.1043	.01481	.04025	2.2805	7.7889	7.4244	84.002	4.6213	7.8414	19.304

#1	.00499	.54979	1.1766	.10092	.01048	.01525	.00905	.01494	.01530	.00968	.02344	.00654
#2	.01780	.55845	1.1951	.10090	.01047	.01575	.01010	.01345	.06007	.01033	.02620	.00860

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail							
Value									.06000			.01500
Range									-30.000%			-30.000%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2974.6	48843.	5731.7
Stddev	1.2	30.	2.5
%RSD	.04169	.06241	.04444

#1	2975.5	48865.	5729.9
#2	2973.8	48822.	5733.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0004	.00372	-0.00447	.01503	.00043	-0.00005	-0.00185	.01822	-0.00001
Stddev	.00042	.00036	.00256	.00055	.00006	.00000	.00222	.00028	.00011
%RSD	1106.9	9.7304	57.226	3.6542	14.761	.95994	119.93	1.5435	1302.0

#1	.00026	.00346	-.00628	.01542	.00038	-.00005	-.00343	.01841	.00007
#2	-.00034	.00398	-.00266	.01464	.00047	-.00005	-.00028	.01802	-.00008

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0015	.00000	.00122	.02294	.33719	.00003	.00119	.00041	-0.0022
Stddev	.00013	.0000	.00067	.00095	.05520	.00135	.01337	.00001	.00008
%RSD	87.263	11334.	54.858	4.1575	16.371	4939.7	1122.4	1.7020	36.990

#1	-.00006	.00000	.00075	.02226	.37622	.00098	-.00826	.00042	-.00027
#2	-.00025	.00000	.00169	.02361	.29816	-.00092	.01064	.00041	-.00016

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10715	.00024	-0.00641	-0.00094	-0.00360	-0.00135	-0.00616	.02995	.06410
Stddev	.00706	.00004	.00049	.00057	.00139	.00091	.00160	.01701	.03640
%RSD	6.5887	16.352	7.7160	60.668	38.733	67.328	25.963	56.778	56.778

#1	.11214	.00021	-.00606	-.00054	-.00261	-.00199	-.00729	.04198	.08984
#2	.10216	.00027	-.00676	-.00135	-.00458	-.00071	-.00503	.01793	.03837

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0139	.00013	-0.00127	.00002	.00040	-0.01859	-0.00096	.00102	-0.00516
Stddev	.00106	.00003	.00037	.00037	.00084	.02201	.00002	.00037	.00250
%RSD	76.176	23.338	29.353	2230.2	210.93	118.37	2.2816	36.436	48.520

#1	-.00214	.00011	-.00154	-.00025	-.00020	-.03416	-.00098	.00129	-.00693
#2	-.00064	.00015	-.00101	.00028	.00099	-.00303	-.00095	.00076	-.00339

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2969.3	49091.	5838.3
Stddev	2.8	106.	102.2
%RSD	.09572	.21667	1.7503

#1	2971.3	49016.	5910.5
#2	2967.3	49166.	5766.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04986	2.0415	.95870	.97552	1.8818	.04747	1.8693	47.396	.09811
Stddev	.00025	.0039	.00539	.00049	.0157	.00047	.0001	.429	.00001
%RSD	.49986	.19262	.56202	.05002	.83231	.99250	.00700	.90457	.00511

#1	.04969	2.0443	.95489	.97517	1.8928	.04781	1.8692	47.699	.09810
#2	.05004	2.0387	.96251	.97586	1.8707	.04714	1.8694	47.093	.09811

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49639	F .16704	.24426	.96285	49.369	.97546	50.244	.51502	1.0258
Stddev	.00008	.00012	.00025	.00973	.403	.01025	.092	.00064	.0028
%RSD	.01639	.07080	.10193	1.0107	.81603	1.0509	.18258	.12429	.27077

#1	.49645	.16696	.24443	.96973	49.654	.98270	50.309	.51547	1.0278
#2	.49634	.16713	.24408	.95597	49.084	.96821	50.180	.51457	1.0238

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.442	.49522	9.9348	.48753	1.8552	.48643	1.8743	10.107	21.629
Stddev	.157	.00034	.0147	.00258	.0061	.00880	.0307	.027	.057
%RSD	.31070	.06862	.14787	.52996	.32810	1.8100	1.6388	.26503	.26503

#1	50.331	.49546	9.9452	.48570	1.8595	.49266	1.8960	10.088	21.589
#2	50.553	.49498	9.9244	.48935	1.8509	.48021	1.8526	10.126	21.670

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9930	.94129	1.0051	1.0128	1.9449	2.0279	.51457	.52958	.45614
Stddev	.0345	.00799	.0040	.0001	.0278	.0163	.00256	.00081	.00402
%RSD	1.7331	.84900	.40038	.00820	1.4293	.80366	.49770	.15331	.88050

#1	2.0174	.94694	1.0080	1.0128	1.9646	2.0164	.51639	.52900	.45330
#2	1.9686	.93564	1.0023	1.0129	1.9253	2.0395	.51276	.53015	.45898

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2862.8	46823.	5825.8
Stddev	6.9	149.	59.9
%RSD	.23979	.31887	1.0276

#1	2858.0	46718.	5783.5
#2	2867.7	46929.	5868.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00021	.01083	-0.00034	.02941	.12158	-0.00002	-0.00047	185.13	-0.00014
Stddev	.00008	.00086	.00450	.00033	.00092	.00010	.00511	.84	.00022
%RSD	40.299	7.9453	1317.0	1.1238	.76075	504.67	1080.8	.45377	156.24

#1	-0.00015	.01023	.00284	.02917	.12092	.00005	-0.00409	184.54	.00001
#2	-0.00027	.01144	-.00352	.02964	.12223	-.00009	.00314	185.73	-.00030

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00003	.00072	.00223	.04762	1.9983	.00877	44.563	.00253	-0.00193
Stddev	.00004	.00005	.00054	.00326	.0170	.00019	.025	.00005	.00043
%RSD	123.29	7.3899	24.240	6.8556	.85188	2.1584	.05620	1.8452	22.138

#1	.00000	.00068	.00261	.04531	2.0103	.00890	44.580	.00256	-.00163
#2	-.00006	.00076	.00185	.04992	1.9862	.00863	44.545	.00250	-.00224

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	105.31	.00438	.01191	.00474	6.7080	.00028	.00131	6.4782	13.863
Stddev	.15	.00002	.00491	.00118	.0015	.00609	.00232	.0073	.016
%RSD	.14607	.55392	41.194	24.975	.02282	2144.8	178.04	.11282	.11282

#1	105.20	.00440	.00844	.00558	6.7091	.00459	.00295	6.4834	13.874
#2	105.42	.00437	.01538	.00390	6.7069	-.00402	-.00034	6.4731	13.852

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	2.7538	.00161	-.00029	-.00943	-.02902	-.00065	-.00025	-.00580
Stddev	.00044	.0174	.00132	.00007	.00241	.01764	.00024	.00017	.00043
%RSD	482.32	.63235	82.131	24.510	25.547	60.773	36.825	70.300	7.4609

#1	.00040	2.7415	.00068	-.00035	-.01114	-.04149	-.00048	-.00037	-.00611
#2	-.00022	2.7661	.00255	-.00024	-.00773	-.01655	-.00082	-.00012	-.00550

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2790.3	46056.	5831.9
Stddev	8.7	197.	1.7
%RSD	.31331	.42677	.02914

#1	2796.5	46195.	5830.7
#2	2784.1	45917.	5833.1

Sample Name: 280-69870-C-1-D SD@5 Acquired: 6/1/2015 15:48:04 Type: Unk

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment: 279562 200.7 (Al Cu Fe Zn)

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00107	.00188	-.00223	.01365	.02383	-.00011	.00030	36.256	-.00032
Stddev	.00020	.00001	.00414	.00006	.00078	.00002	.00199	.849	.00013
%RSD	18.928	.68773	185.50	.43298	3.2898	19.426	670.89	2.3413	39.093

#1	.00121	.00187	-.00516	.01360	.02327	-.00013	-.00111	35.655	-.00041
#2	.00093	.00189	.00070	.01369	.02438	-.00010	.00171	36.856	-.00023

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00057	.00048	.00131	.01359	.65624	.00401	8.9935	.00083	-.00165
Stddev	.00009	.00005	.00027	.00311	.02046	.00127	.0762	.00009	.00023
%RSD	15.588	11.222	20.804	22.857	3.1184	31.760	.84764	11.042	14.062

#1	.00051	.00052	.00112	.01140	.64177	.00491	8.9396	.00076	-.00149
#2	.00063	.00045	.00150	.01579	.67071	.00311	9.0474	.00089	-.00181

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.867	.00295	-.00188	.00057	1.3184	.00183	W -.00686	1.2663	2.7098
Stddev	.624	.00095	.00163	.00191	.0234	.00045	.00027	.0551	.1179
%RSD	3.3077	32.067	86.802	337.22	1.7733	24.649	3.9432	4.3493	4.3493

#1	18.426	.00362	-.00303	.00192	1.3019	.00151	-.00667	1.2273	2.6265
#2	19.308	.00228	-.00073	-.00078	1.3350	.00215	-.00705	1.3052	2.7931

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							5.0000		
Low Limit							-.00500		

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00527	.53214	.00093	-.00061	-.00260	-.03210	-.00112	.00005	-.00488
Stddev	.00106	.01227	.00206	.00022	.00070	.01956	.00027	.00010	.00126
%RSD	20.110	2.3054	222.68	36.502	26.949	60.929	24.093	182.92	25.767

#1	.00602	.52346	-.00053	-.00045	-.00210	-.01827	-.00131	.00012	-.00399
#2	.00452	.54081	.00239	-.00076	-.00309	-.04593	-.00093	-.00002	-.00577

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2860.2	46850.	5595.4
Stddev	5.8	161.	88.0
%RSD	.20380	.34455	1.5719

#1	2856.1	46965.	5657.6
#2	2864.3	46736.	5533.2

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05225	2.0074	W 2.3764	.97080	.99319	2.0330	.04783	F 1.8721	241.83
Stddev	.00045	.0020	.0181	.00737	.00147	.0158	.00068	.0064	2.20
%RSD	.86575	.09846	.76235	.75866	.14794	.77630	1.4301	.34289	.91165

#1	.05257	2.0060	2.3636	.97601	.99215	2.0219	.04734	1.8675	240.27
#2	.05193	2.0088	2.3892	.96559	.99423	2.0442	.04831	1.8766	243.39

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00					.10000	
Low Limit			3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09865	.48487	W .16011	.24518	1.0064	52.964	1.0132	95.788	.51280
Stddev	.00012	.00004	.00053	.00057	.0087	.544	.0068	.164	.00047
%RSD	.11699	.00762	.33137	.23122	.86774	1.0269	.67521	.17077	.09234

#1	.09857	.48485	.15973	.24558	1.0002	52.579	1.0084	95.672	.51246
#2	.09873	.48490	.16048	.24478	1.0126	53.348	1.0180	95.904	.51313

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.10000						
Low Limit			-.01000						

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0280	159.56	.48467	W 10.304	.47266	8.9308	.48574	1.8713	17.006
Stddev	.0019	1.47	.00057	.048	.00003	.0266	.00553	.0009	.046
%RSD	.18253	.91984	.11731	.46159	.00566	.29804	1.1389	.04720	.26919

#1	1.0267	158.52	.48427	10.270	.47264	8.9119	.48183	1.8720	16.974
#2	1.0294	160.60	.48507	10.337	.47268	8.9496	.48965	1.8707	17.039

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				2.0000					
Low Limit				-1.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	36.393	1.9327	3.8642	1.0121	1.0195	1.8061	2.0520	.52125	.52306
Stddev	.098	.0066	.0329	.0007	.0001	.0023	.0381	.00048	.00070
%RSD	.26919	.34022	.85199	.07333	.01059	.12858	1.8561	.09270	.13290

#1	36.324	1.9281	3.8409	1.0115	1.0194	1.8045	2.0251	.52091	.52257
#2	36.463	1.9374	3.8875	1.0126	1.0195	1.8077	2.0789	.52160	.52356

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.45511
Stddev	.00147
%RSD	.32359

#1	.45615
#2	.45407

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69870-C-1-E MS Acquired: 6/1/2015 15:50:45 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 279562 200.7 (Al Cu Fe Zn)

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2757.1	45236.	5649.2
Stddev	2.1	49.	55.4
%RSD	.07489	.10851	.98155
#1	2755.6	45201.	5688.4
#2	2758.6	45270.	5609.9

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05103	1.9980	W 2.3775	.96482	.98835	2.0467	.04803	F 1.8495	245.33
Stddev	.00082	.0024	.0279	.00204	.00273	.0254	.00002	.0075	3.37
%RSD	1.6126	.11793	1.1758	.21129	.27646	1.2391	.04912	.40664	1.3752

#1	.05161	1.9997	2.3973	.96627	.99028	2.0646	.04801	1.8548	247.71
#2	.05045	1.9963	2.3577	.96338	.98642	2.0287	.04804	1.8442	242.94

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00					.10000	
Low Limit			3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09845	.48366	W .16058	.24532	1.0149	53.046	1.0145	96.223	.51252
Stddev	.00080	.00174	.00007	.00017	.0073	.648	.0086	.080	.00012
%RSD	.81332	.35917	.04517	.06936	.72179	1.2214	.84232	.08307	.02338

#1	.09902	.48488	.16063	.24544	1.0201	53.504	1.0206	96.166	.51243
#2	.09789	.48243	.16053	.24519	1.0097	52.587	1.0085	96.279	.51260

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.10000						
Low Limit			-.01000						

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0275	160.80	.48257	W 10.270	.46643	8.9957	.48919	1.8922	17.115
Stddev	.0003	2.35	.00090	.030	.00055	.0218	.00176	.0038	.038
%RSD	.03088	1.4632	.18667	.29199	.11769	.24263	.36063	.20125	.22096

#1	1.0277	162.47	.48321	10.291	.46605	9.0111	.49044	1.8949	17.088
#2	1.0273	159.14	.48194	10.248	.46682	8.9802	.48795	1.8895	17.141

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				2.0000					
Low Limit				-1.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	36.625	1.9671	3.9275	1.0146	1.0222	1.8219	2.0442	.52038	.51645
Stddev	.081	.0062	.0486	.0001	.0013	.0073	.0215	.00102	.00151
%RSD	.22096	.31607	1.2365	.01368	.13128	.39788	1.0539	.19529	.29210

#1	36.568	1.9627	3.9618	1.0147	1.0213	1.8270	2.0290	.51966	.51538
#2	36.683	1.9715	3.8931	1.0145	1.0232	1.8167	2.0595	.52110	.51752

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.45844
Stddev	.00008
%RSD	.01786

#1	.45850
#2	.45839

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69870-C-1-F MSD Acquired: 6/1/2015 15:53:08 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 279562 200.7 (Al Cu Fe Zn)

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2771.8	45773.	5752.4
Stddev	9.3	47.	110.9
%RSD	.33578	.10353	1.9287
#1	2765.2	45806.	5674.0
#2	2778.4	45739.	5830.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.14165	-.00493	.02446	.13586	-.00006	.00218	175.16	.00006
Stddev	.00034	.00061	.00174	.00115	.00304	.00008	.00069	4.42	.00027
%RSD	797.26	.42989	35.340	4.6902	2.2339	132.61	31.556	2.5228	470.11

#1	.00028	.14122	-.00370	.02365	.13372	.00000	.00169	172.04	.00025
#2	-.00020	.14208	-.00616	.02527	.13801	-.00012	.00267	178.29	-.00014

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00015	.00072	.00169	.69956	2.0460	.00586	42.761	.08164	-.00121
Stddev	.00019	.00009	.00054	.01960	.0702	.00178	.011	.00077	.00019
%RSD	125.18	12.474	32.145	2.8014	3.4333	30.354	.02609	.94738	15.320

#1	.00029	.00065	.00131	.68570	1.9963	.00460	42.753	.08219	-.00108
#2	.00002	.00078	.00208	.71342	2.0956	.00712	42.769	.08110	-.00134

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	116.50	.00408	.02137	.00438	6.8299	.00566	.00092	6.9744	14.925
Stddev	.58	.00013	.00118	.00086	.0143	.00262	.00385	.3612	.773
%RSD	.49361	3.0739	5.5123	19.586	.20884	46.221	419.50	5.1793	5.1793

#1	116.09	.00416	.02053	.00378	6.8400	.00381	-.00180	6.7189	14.379
#2	116.91	.00399	.02220	.00499	6.8199	.00752	.00364	7.2298	15.472

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00039	2.7432	-.00041	.00312	-.00771	-.01079	.00006	.00218	-.00579
Stddev	.00113	.0708	.00132	.00022	.00003	.06358	.00012	.00086	.00231
%RSD	290.85	2.5818	323.20	7.1729	.44080	589.44	197.56	39.409	39.894

#1	-.00119	2.6931	-.00134	.00296	-.00774	.03417	-.00002	.00157	-.00416
#2	.00041	2.7933	.00053	.00328	-.00769	-.05575	.00014	.00278	-.00743

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2829.2	47108.	5778.6
Stddev	2.8	9.	172.0
%RSD	.09873	.01844	2.9758

#1	2831.2	47114.	5900.2
#2	2827.2	47101.	5657.0

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00326	50.478	.00137	.00688	.00096	.00016	.96058	.03418	-.00005	-.00052	.00075
Stddev	.00048	.536	.00090	.00104	.00012	.00009	.00323	.00572	.00007	.00020	.00047
%RSD	14.729	1.0617	65.908	15.057	12.891	54.308	.33637	16.728	141.74	38.138	63.650

#1	.00292	50.857	.00073	.00614	.00088	.00010	.95829	.03822	.00000	-.00066	.00041
#2	.00360	50.099	.00201	.00761	.00105	.00022	.96286	.03013	-.00009	-.00038	.00108

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00108	48.474	.32870	.00341	.06256	-.00154	-.00104	247.88	.00255	-.00110	-.00158
Stddev	.00054	.057	.02742	.00122	.00424	.00013	.00000	2.65	.00010	.00045	.00007
%RSD	50.172	.11846	8.3405	35.839	6.7748	8.3569	.36814	1.0676	3.7958	41.263	4.1336

#1	-.00146	48.434	.30932	.00427	.06556	-.00144	-.00104	249.76	.00248	-.00142	-.00162
#2	-.00070	48.515	.34809	.00254	.05957	-.00163	-.00104	246.01	.00262	-.00078	-.00153

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.6394	-.01008	.00330	-.01935	-.04141	-.00228	.00052	5.0021	-.01237	.00273	10.272
Stddev	.0258	.00310	.00017	.00914	.01955	.00004	.00006	.0066	.00127	.00303	.138
%RSD	.55578	30.726	5.2268	47.215	47.215	1.5777	10.671	.13140	10.240	111.08	1.3415

#1	4.6212	-.01227	.00318	-.02581	-.05524	-.00231	.00056	5.0068	-.01327	.00059	10.174
#2	4.6576	-.00789	.00342	-.01289	-.02759	-.00226	.00048	4.9975	-.01147	.00487	10.369

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	5.0000										
Range	-5.0000%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00211	-.00076	-.14299
Stddev	.00020	.00116	.00168
%RSD	9.3970	151.87	1.1715

#1	.00197	-.00159	-.14181
#2	.00225	.00006	-.14417

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2914.7	47860.	5751.3
Stddev	17.1	333.	59.4
%RSD	.58508	.69519	1.0335

#1	2926.7	47625.	5709.2
#2	2902.6	48096.	5793.3

Sample Name: CCV-3296664 Acquired: 6/1/2015 16:00:46 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50678	.54148	.96191	.48558	.46843	.47232	.00492	4.8643	.49142	.51540	F .43155	.48364
Stddev	.00185	.00117	.00042	.00084	.00118	.00081	.00008	.0061	.00156	.00208	.00302	.00337
%RSD	.36458	.21588	.04388	.17249	.25191	.17133	1.6513	.12513	.31691	.40265	.70095	.69727

#1	.50809	.54230	.96221	.48617	.46760	.47175	.00487	4.8600	.49252	.51393	.42941	.48603
#2	.50547	.54065	.96162	.48499	.46927	.47289	.00498	4.8686	.49032	.51687	.43369	.48126

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass					
Value											.50000	
Range											-10.490%	

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.4108	48.807	.97104	20.269	.52577	.49690	5.0655	.51662	.99177	.98563	-.01987	.94311
Stddev	.0052	.052	.00094	.016	.00027	.00126	.0198	.00371	.00086	.00828	.00020	.01082
%RSD	.21687	.10555	.09713	.08133	.05230	.25432	.39021	.71900	.08623	.84052	1.0224	1.1477

#1	2.4071	48.771	.97037	20.257	.52596	.49601	5.0515	.51399	.99116	.97977	-.02001	.93545
#2	2.4145	48.844	.97171	20.280	.52557	.49780	5.0794	.51925	.99237	.99148	-.01972	.95076

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.92812	5.0548	10.817	.99776	.47056	-.00576	.51366	.98812	-.00662	.52196	F .55361	.47814
Stddev	.01667	.0534	.114	.01056	.00099	.00212	.00151	.01182	.00599	.00073	.01006	.00137
%RSD	1.7964	1.0573	1.0573	1.0585	.21123	36.774	.29415	1.1965	90.419	.13903	1.8166	.28569

#1	.91633	5.0170	10.736	.99029	.46986	-.00725	.51259	.97976	-.00239	.52145	.54650	.47911
#2	.93990	5.0926	10.898	1.0052	.47126	-.00426	.51472	.99648	-.01086	.52248	.56072	.47718

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Fail	Chk Pass				
Value											.50000	
Range											10.490%	

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2901.9	47122.	5843.3
Stddev	9.4	49.	36.2
%RSD	.32498	.10407	.61908

#1	2895.2	47087.	5868.8
#2	2908.5	47157.	5817.7

Sample Name: CCB Acquired: 6/1/2015 16:03:16 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00045	-.00051	-.00053	.00476	.00039	-.00003	.00203	.00193	-.00015	-.00018	.00046	.00061	.00047
Stddev	.00006	.00050	.00177	.00041	.00013	.00002	.00129	.00521	.00020	.00022	.00028	.00077	.00075
%RSD	14.382	98.658	336.72	8.5393	34.191	55.175	63.236	270.42	131.49	122.26	60.511	126.67	159.27
#1	.00049	-.00015	-.00178	.00447	.00048	-.00004	.00294	-.00176	-.00001	-.00034	.00066	.00006	-.00006
#2	.00040	-.00087	.00073	.00504	.00029	-.00002	.00112	.00561	-.00030	-.00002	.00026	.00116	.00100

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.22305	-.00003	.00402	.00012	-.00003	.09040	-.00009	-.00818	-.00083	-.02143	-.00265	-.00456	.01595
Stddev	.00877	.00063	.00341	.00004	.00040	.01272	.00053	.00003	.00054	.00413	.00366	.00480	.00685
%RSD	3.9330	1914.7	84.875	35.869	1195.2	14.069	600.02	.40860	65.554	19.250	138.24	105.28	42.933
#1	.22925	.00041	.00161	.00016	-.00032	.08141	.00029	-.00815	-.00044	-.01851	-.00006	-.00116	.02079
#2	.21685	-.00048	.00643	.00009	.00025	.09939	-.00046	-.00820	-.00121	-.02435	-.00524	-.00795	.01111

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03413	-.00159	.00019	-.00055	-.00058	.00207	-.03194	-.00050	-.00061	-.00592
Stddev	.01465	.00174	.00010	.00009	.00012	.00030	.02395	.00011	.00025	.00116
%RSD	42.933	109.73	51.269	15.836	20.703	14.596	74.981	22.483	40.353	19.553
#1	.04450	-.00036	.00026	-.00049	-.00050	.00185	-.04888	-.00042	-.00079	-.00674
#2	.02377	-.00282	.00012	-.00061	-.00067	.00228	-.01501	-.00058	-.00044	-.00511

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2917.2	47753.	5626.0
Stddev	4.3	74.	7.7
%RSD	.14853	.15561	.13610
#1	2914.2	47805.	5631.4
#2	2920.3	47700.	5620.6

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01068	.11233	.01299	.10139	.01042	.00098	.10176	.21572	.00478	.01119	.00923	.01578
Stddev	.00061	.00058	.00220	.00086	.00042	.00009	.00080	.00247	.00001	.00038	.00018	.00043
%RSD	5.6654	.51491	16.952	.85214	4.0483	9.6867	.78738	1.1452	.14632	3.3795	1.9366	2.7238

#1	.01111	.11274	.01455	.10078	.01072	.00091	.10233	.21397	.00477	.01146	.00935	.01608
#2	.01025	.11192	.01144	.10200	.01012	.00104	.10119	.21746	.00478	.01093	.00910	.01548

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10341	3.4162	.00912	.21652	.01131	.01967	1.1824	.04319	2.9410	.00860	-.02594	F .00542
Stddev	.00212	.0663	.00065	.01009	.00021	.00003	.0256	.00059	.0060	.00124	.00261	.00118
%RSD	2.0516	1.9408	7.1739	4.6586	1.8665	.13732	2.1683	1.3767	.20453	14.402	10.048	21.811

#1	.10491	3.4631	.00959	.20939	.01116	.01965	1.2005	.04277	2.9452	.00773	-.02410	.00626
#2	.10191	3.3693	.00866	.22366	.01146	.01969	1.1642	.04361	2.9367	.00948	-.02779	.00459

Check ?	Chk Pass	None	Chk Fail									
Value												.01000
Range												-30.000%

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .00875	.54364	1.1634	.10212	.01030	.01434	.00931	.01899	F .03154	.01032	.02547	F .00911
Stddev	.00381	.01203	.0257	.00124	.00035	.00239	.00025	.00119	.04342	.00098	.00005	.00041
%RSD	43.595	2.2131	2.2131	1.2141	3.4272	16.629	2.6443	6.2717	137.65	9.5115	.20138	4.4845

#1	.01144	.55215	1.1816	.10124	.01055	.01603	.00913	.01984	.00084	.01101	.02550	.00882
#2	.00605	.53514	1.1452	.10299	.01005	.01266	.00948	.01815	.06224	.00962	.02543	.00940

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail						
Value	.01500								.06000			.01500
Range	-30.000%								-30.000%			-30.000%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2928.9	47804.	5681.2
Stddev	11.3	98.	18.2
%RSD	.38660	.20417	.32073

#1	2920.9	47735.	5668.4
#2	2936.9	47873.	5694.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00108	.09220	-.00740	.02322	.09289	-.00008	-.00190	107.12	.00003
Stddev	.00038	.00074	.00404	.00042	.00118	.00003	.00206	1.61	.00003
%RSD	34.764	.79921	54.678	1.7931	1.2738	41.247	108.41	1.5018	87.254

#1	.00134	.09272	-.00454	.02351	.09205	-.00005	-.00336	105.98	.00005
#2	.00081	.09168	-.01026	.02292	.09372	-.00010	-.00044	108.26	.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	.00067	.00189	1.2509	1.2381	.00219	30.092	.11860	-.00267
Stddev	.00018	.00027	.00005	.0278	.0924	.00078	.024	.00045	.00009
%RSD	179.88	40.118	2.4840	2.2219	7.4624	35.504	.07841	.37983	3.4286

#1	-.00023	.00048	.00192	1.2313	1.1727	.00275	30.108	.11892	-.00273
#2	.00003	.00086	.00185	1.2706	1.3034	.00164	30.075	.11828	-.00260

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.114	.00345	.07925	.00263	9.0475	.00093	-.00021	7.0465	15.080
Stddev	1.213	.00020	.00119	.00019	.1361	.00214	.00226	.2350	.503
%RSD	2.4699	5.8581	1.5038	7.0577	1.5042	229.26	1059.2	3.3348	3.3348

#1	48.256	.00359	.08009	.00276	9.1438	.00244	-.00181	6.8803	14.724
#2	49.971	.00331	.07840	.00250	8.9513	-.00058	.00138	7.2127	15.435

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00110	1.9202	.00018	.00134	-.00581	W -.05554	-.00096	-.00036	-.00535
Stddev	.00217	.0321	.00028	.00040	.00423	.01611	.00002	.00035	.00036
%RSD	197.64	1.6713	157.29	30.130	72.796	29.013	1.7594	96.118	6.6821

#1	-.00264	1.8975	-.00002	.00105	-.00880	-.04414	-.00098	-.00012	-.00560
#2	.00044	1.9429	.00037	.00162	-.00282	-.06693	-.00095	-.00061	-.00510

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2825.9	46275.	5644.8
Stddev	11.2	236.	38.1
%RSD	.39700	.51050	.67566

#1	2818.0	46108.	5671.8
#2	2833.9	46442.	5617.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00032	.03552	-.00424	.13864	.64723	-.00004	.00051	2.6190	.00007
Stddev	.00062	.00043	.00729	.00082	.01596	.00014	.00016	.0335	.00012
%RSD	195.30	1.2100	171.85	.59047	2.4662	386.49	31.432	1.2783	166.23

#1	.00075	.03582	-.00940	.13922	.63595	.00006	.00062	2.5953	.00016
#2	-.00012	.03521	.00091	.13807	.65852	-.00014	.00040	2.6427	-.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00102	.00090	.00212	.65393	3.2506	.08612	.69815	.01052	.00005
Stddev	.00014	.00006	.00017	.00315	.0595	.00158	.01381	.00001	.00023
%RSD	13.260	6.4753	7.8339	.48229	1.8289	1.8323	1.9783	.10872	451.51

#1	-.00111	.00094	.00224	.65170	3.2086	.08724	.68839	.01052	-.00011
#2	-.00092	.00086	.00200	.65616	3.2927	.08501	.70792	.01051	.00021

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 592.56	.00012	.02554	-.00223	.00661	-.00262	W -.00659	8.5698	18.339
Stddev	16.11	.00043	.00001	.00079	.00475	.00183	.00072	.0815	.174
%RSD	2.7186	360.35	.03016	35.693	71.799	69.785	10.881	.95129	.95129

#1	581.17	-.00018	.02555	-.00279	.00325	-.00132	-.00608	8.5122	18.216
#2	603.95	.00042	.02554	-.00166	.00997	-.00391	-.00710	8.6275	18.463

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass				
High Limit	500.00						5.0000		
Low Limit	11.000						-.00500		

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00131	.48717	-.00230	-.00019	.00182	-.02023	-.00170	-.00097	-.00616
Stddev	.00012	.01252	.00141	.00021	.00087	.01864	.00076	.00005	.00100
%RSD	9.0484	2.5696	61.166	111.35	47.976	92.172	44.610	5.1053	16.219

#1	-.00123	.47832	-.00130	-.00004	.00244	-.03341	-.00223	-.00101	-.00545
#2	-.00140	.49602	-.00329	-.00034	.00120	-.00704	-.00116	-.00094	-.00687

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2742.0	44876.	5679.8
Stddev	9.9	105.	148.5
%RSD	.36054	.23493	2.6145

#1	2749.0	44802.	5784.8
#2	2735.0	44951.	5574.8

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00024	W 2.8679	-.00606	.14643	.49366	.00007	-.00049	3.6812	-.00014
Stddev	.00005	.0113	.00057	.00034	.00068	.00001	.00060	.0034	.00002
%RSD	20.680	.39358	9.4114	.22964	.13749	16.217	122.71	.09300	12.396

#1	.00020	2.8759	-.00647	.14620	.49414	.00007	-.00006	3.6837	-.00013
#2	.00027	2.8600	-.00566	.14667	.49318	.00006	-.00091	3.6788	-.00015

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		500.00							
Low Limit		3.2000							

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00045	.00246	.00372	1.9901	3.9044	.09229	1.1351	.05597	.00027
Stddev	.00006	.00031	.00090	.0115	.0271	.00107	.0048	.00002	.00030
%RSD	14.356	12.514	24.111	.57842	.69461	1.1541	.42069	.02996	109.13

#1	-.00041	.00268	.00435	1.9982	3.8853	.09154	1.1385	.05599	.00006
#2	-.00050	.00224	.00308	1.9820	3.9236	.09305	1.1318	.05596	.00049

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 564.22	.00162	.08649	W -.00323	.17988	-.00102	-.00454	12.993	27.806
Stddev	.38	.00051	.00285	.00102	.00400	.00227	.00014	.070	.149
%RSD	.06712	31.216	3.2927	31.609	2.2238	222.74	3.0746	.53565	.53565

#1	564.49	.00198	.08448	-.00396	.18271	-.00263	-.00444	12.944	27.700
#2	563.96	.00126	.08851	-.00251	.17706	.00059	-.00464	13.043	27.911

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit	500.00			10.000					
Low Limit	11.000			-.00300					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00223	.48213	-.00067	.07061	.00106	.01171	.00444	.00923	-.00519
Stddev	.00070	.00031	.00052	.00100	.00109	.01578	.00064	.00036	.00104
%RSD	31.466	.06397	78.242	1.4205	102.54	134.70	14.465	3.8967	19.996

#1	-.00273	.48235	-.00104	.07132	.00184	.02287	.00398	.00949	-.00446
#2	-.00174	.48191	-.00030	.06990	.00029	.00056	.00489	.00898	-.00592

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2807.7	45377.	5655.4
Stddev	7.1	102.	13.5
%RSD	.25458	.22379	.23857

#1	2812.8	45449.	5645.8
#2	2802.7	45305.	5664.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0080	-0.0124	.00110	-0.0062	.00035	.00062	.00718	.00481	-0.0029
Stddev	.00021	.00003	.00097	.00006	.00035	.00001	.00081	.00291	.00009
%RSD	26.275	2.4402	87.915	9.5863	100.57	1.0033	11.326	60.390	30.595

#1	-0.0065	-0.0126	.00042	-0.0066	.00010	.00063	.00660	.00276	-0.0036
#2	-0.0094	-0.0122	.00179	-0.0058	.00060	.00062	.00775	.00687	-0.0023

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00042	.00033	-0.00307	.00004	.27116	.00536	.00024	.00001	-0.0028
Stddev	.00006	.00018	.00014	.00110	.01832	.00072	.00122	.00004	.00002
%RSD	15.403	54.889	4.6381	2481.5	6.7551	13.433	505.53	708.95	6.8800

#1	.00037	.00020	-0.00317	.00082	.25820	.00485	-0.0062	.00003	-0.0029
#2	.00047	.00046	-0.00297	-0.00074	.28411	.00586	.00111	-0.00002	-0.0027

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.21766	.00113	-0.00584	.00088	-0.00671	-0.00270	W -.00983	.01008	.02158
Stddev	.00636	.00034	.00070	.00056	.00242	.00036	.00147	.01514	.03240
%RSD	2.9219	30.419	11.973	63.136	36.027	13.382	14.903	150.14	150.14

#1	.22216	.00089	-0.00633	.00049	-0.00842	-0.00245	-0.00880	.02079	.04448
#2	.21316	.00137	-0.00535	.00128	-0.00500	-0.00296	-0.01087	-0.00062	-0.0133

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							5.0000		
Low Limit							-0.00500		

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0141	.00010	.00002	-0.00018	.00244	-0.00940	.00281	-0.00052	-0.0115
Stddev	.00022	.00007	.00045	.00004	.00082	.01742	.00022	.00001	.00081
%RSD	15.769	71.103	1948.2	21.409	33.709	185.19	7.8310	2.3656	70.780

#1	-0.0125	.00015	.00034	-0.00021	.00302	-0.02172	.00297	-0.00051	-0.0057
#2	-0.0156	.00005	-0.00029	-0.00016	.00186	.00291	.00266	-0.00053	-0.0173

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	4959.0	81362.	8951.9
Stddev	23.8	1525.	1032.8
%RSD	.48024	1.8737	11.537

#1	4975.8	82440.	9682.2
#2	4942.1	80284.	8221.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0051	-0.00148	.00116	-0.00036	.00042	.00069	.00667	-0.00177	-0.00038
Stddev	.00039	.00026	.00143	.00052	.00001	.00004	.00125	.00124	.00002
%RSD	76.261	17.581	123.28	145.24	1.7203	5.5425	18.690	70.358	6.4600

#1	-0.00023	-0.00129	.00218	.00001	.00042	.00072	.00756	-.00265	-0.00037
#2	-0.00078	-0.00166	.00015	-.00073	.00041	.00067	.00579	-.00089	-0.00040

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00024	.00027	-0.00385	-0.00211	.25707	.00646	.00023	.00004	-0.00025
Stddev	.00016	.00014	.00025	.00136	.00595	.00006	.00159	.00004	.00006
%RSD	65.669	51.641	6.5030	64.325	2.3149	.98563	687.59	115.79	24.083

#1	.00013	.00037	-.00367	-.00115	.26128	.00642	-.00089	.00007	-0.00030
#2	.00035	.00017	-.00403	-.00308	.25286	.00651	.00135	.00001	-0.00021

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05624	.00125	-0.00592	-0.00002	-0.00535	-0.00247	F -.01020	-0.01694	-0.03626
Stddev	.00855	.00011	.00044	.00100	.00364	.00031	.00012	.00042	.00091
%RSD	15.200	8.9178	7.3629	5961.6	68.002	12.631	1.1452	2.5073	2.5073

#1	.05019	.00133	-.00561	.00069	-.00278	-.00269	-.01012	-.01724	-.03690
#2	.06228	.00117	-.00623	-.00072	-.00793	-.00225	-.01028	-.01664	-.03562

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							50.000		
Low Limit							-.01000		

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0128	.00004	-0.00135	-0.00030	.00304	-0.00979	.00342	-0.00078	-0.00268
Stddev	.00034	.00004	.00072	.00006	.00135	.01404	.00005	.00031	.00161
%RSD	26.728	115.89	53.150	19.388	44.550	143.44	1.3458	39.593	60.044

#1	-0.0153	.00001	-.00186	-.00034	.00208	.00014	.00345	-.00100	-0.00382
#2	-0.0104	.00007	-.00084	-.00026	.00399	-.01971	.00339	-.00056	-0.00154

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	5077.9	86136.	8619.3
Stddev	18.0	128.	2.2
%RSD	.35483	.14916	.02515

#1	5090.7	86227.	8617.7
#2	5065.2	86045.	8620.8

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00042	4.9681	-.00321	.01349	.09462	.00011	-.00158	32.241	.00020
Stddev	.00047	.0257	.00125	.00132	.00003	.00001	.00245	.103	.00008
%RSD	111.60	.51723	38.939	9.7993	.03348	11.015	155.31	.32084	40.750

#1	.00009	4.9500	-.00410	.01443	.09464	.00012	.00015	32.168	.00025
#2	.00075	4.9863	-.00233	.01256	.09459	.00010	-.00331	32.314	.00014

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00081	.00362	.00497	3.2652	2.4591	.01421	6.2648	.09419	-.00053
Stddev	.00003	.00010	.00020	.0127	.0308	.00159	.0780	.00175	.00002
%RSD	3.3153	2.8819	3.9435	.38812	1.2519	11.169	1.2448	1.8535	4.1070

#1	.00079	.00370	.00483	3.2563	2.4373	.01533	6.2097	.09296	-.00051
#2	.00083	.00355	.00511	3.2742	2.4808	.01309	6.3199	.09543	-.00054

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.5480	.00504	.08592	.00040	8.1629	-.00135	-.00236	15.792	33.796
Stddev	.0272	.00033	.00086	.00163	.1465	.00154	.00021	.232	.497
%RSD	.35997	6.4757	1.0054	408.55	1.7943	113.55	9.0628	1.4712	1.4712

#1	7.5288	.00481	.08531	-.00075	8.0593	-.00027	-.00251	15.628	33.444
#2	7.5672	.00527	.08653	.00155	8.2665	-.00244	-.00221	15.957	34.147

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00018	.21389	.00103	.13835	-.00235	-.02254	.00942	.01146	-.00372
Stddev	.00071	.00011	.00205	.00683	.00166	.00301	.00016	.00011	.00050
%RSD	383.36	.05274	199.14	4.9333	70.459	13.343	1.6707	.94144	13.386

#1	-.00031	.21381	.00248	.14318	-.00118	-.02041	.00953	.01138	-.00337
#2	.00068	.21397	-.00042	.13353	-.00352	-.02467	.00931	.01153	-.00407

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2853.5	47741.	5854.2
Stddev	15.5	38.	18.2
%RSD	.54273	.08041	.31138

#1	2864.5	47768.	5867.0
#2	2842.5	47714.	5841.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00053	.08060	-.00097	.00352	.04168	.00010	-.00071	34.973	.00376
Stddev	.00002	.00036	.00154	.00065	.00036	.00014	.00004	.318	.00023
%RSD	3.7102	.44902	157.79	18.428	.85503	129.70	5.6419	.91047	6.0043

#1	.00055	.08034	-.00206	.00398	.04193	.00020	-.00068	35.198	.00392
#2	.00052	.08085	.00011	.00306	.04143	.00001	-.00074	34.747	.00360

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00120	.00003	.01420	.34384	.98276	.00417	31.098	.12065	.00240
Stddev	.00051	.00003	.00014	.00486	.00333	.00072	.079	.00043	.00062
%RSD	42.246	88.854	.97358	1.4133	.33890	17.364	.25300	.35485	25.703

#1	.00156	.00001	.01429	.34728	.98512	.00468	31.154	.12096	.00283
#2	.00084	.00005	.01410	.34040	.98041	.00366	31.043	.12035	.00196

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.92850	.00563	-.00025	.00341	30.319	.00028	W -.00525	2.5899	5.5424
Stddev	.00191	.00001	.00092	.00049	.229	.00060	.00131	.0093	.0199
%RSD	.20608	.09297	369.42	14.419	.75691	217.53	25.030	.36001	.36001

#1	.92986	.00564	-.00089	.00376	30.481	.00070	-.00618	2.5965	5.5565
#2	.92715	.00563	.00040	.00306	30.156	-.00015	-.00432	2.5833	5.5283

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							5.0000		
Low Limit							-.00500		

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00077	.20837	-.00020	-.00029	-.00299	-.01185	-.00104	1.1408	-.00745
Stddev	.00123	.00115	.00125	.00048	.00000	.02198	.00119	.0219	.00247
%RSD	159.49	.55146	622.54	162.92	.14119	185.48	115.11	1.9205	33.087

#1	-.00164	.20918	-.00108	.00004	-.00299	-.02740	-.00019	1.1253	-.00920
#2	.00010	.20756	.00068	-.00063	-.00299	.00369	-.00188	1.1563	-.00571

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2811.9	46226.	5777.2
Stddev	2.8	95.	84.3
%RSD	.09866	.20444	1.4597

#1	2813.9	46159.	5717.5
#2	2810.0	46293.	5836.8

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00440	51.549	.00036	.00158	.00126	.00009	.97980	.03773	-.00042	-.00047	.00078
Stddev	.00011	1.514	.00695	.00128	.00010	.00009	.00106	.00585	.00027	.00029	.00007
%RSD	2.4649	2.9362	1946.7	81.310	7.9905	92.743	.10792	15.510	63.558	61.472	8.4788

#1	.00433	52.620	.00527	.00249	.00133	.00003	.97905	.04186	-.00061	-.00026	.00073
#2	.00448	50.479	-.00456	.00067	.00118	.00016	.98055	.03359	-.00023	-.00067	.00082

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00168	49.800	.42594	.00497	.06081	-.00162	-.00055	249.75	.00307	-.00186	-.00191
Stddev	.00094	1.034	.00405	.00030	.00715	.00002	.00016	7.25	.00017	.00321	.00100
%RSD	55.878	2.0768	.95152	6.0215	11.757	1.2721	29.189	2.9047	5.6249	172.51	52.442

#1	-.00101	50.531	.42308	.00518	.05576	-.00161	-.00067	254.88	.00294	-.00413	-.00120
#2	-.00234	49.068	.42881	.00476	.06587	-.00164	-.00044	244.62	.00319	.00041	-.00262

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.7665	-.01251	.00470	.00602	.01289	-.00296	.00048	5.1814	-.01241	.00590	W 10.522
Stddev	.0632	.00174	.00135	.02192	.04690	.00202	.00014	.0219	.00025	.00030	.062
%RSD	1.3258	13.926	28.666	363.77	363.77	68.088	29.520	.42201	2.0191	5.1650	.58457

#1	4.8112	-.01374	.00565	.02152	.04606	-.00154	.00038	5.1659	-.01259	.00568	10.566
#2	4.7218	-.01128	.00375	-.00947	-.02027	-.00439	.00058	5.1968	-.01223	.00611	10.479

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value											10.000
Range											5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00251	-.00107	-.15262
Stddev	.00100	.00080	.00053
%RSD	39.962	74.581	.34966

#1	.00322	-.00163	-.15224
#2	.00180	-.00050	-.15300

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2823.8	46046.	5622.4
Stddev	6.8	199.	191.7
%RSD	.24219	.43214	3.4089

#1	2828.7	46186.	5486.8
#2	2819.0	45905.	5757.9

Sample Name: CCV-3296664 Acquired: 6/1/2015 16:28:53 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52272	F .56195	.98823	.49602	.47920	.48330	.00323	4.9665	.50687	.52503	F .43543	.48969
Stddev	.00112	.00124	.01331	.00305	.00153	.00037	.00023	.0138	.00051	.00556	.00587	.00306
%RSD	.21445	.22076	1.3464	.61553	.31852	.07719	7.1935	.27741	.10141	1.0585	1.3478	.62575

#1	.52351	.56108	.97882	.49386	.47812	.48303	.00307	4.9567	.50723	.52110	.43128	.49186
#2	.52193	.56283	.99764	.49818	.48028	.48356	.00340	4.9762	.50650	.52896	.43958	.48752

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value		.50000									.50000	
Range		10.490%									-10.490%	

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.4765	49.843	.98562	20.761	.54297	.50702	5.1590	.52635	1.0181	1.0013	-.02080	.96226
Stddev	.0020	.141	.00572	.054	.00081	.00659	.0028	.00748	.0130	.0127	.00017	.01610
%RSD	.07906	.28323	.58034	.26010	.14978	1.3001	.05391	1.4214	1.2740	1.2690	.82229	1.6734

#1	2.4751	49.942	.98158	20.799	.54240	.50236	5.1610	.52106	1.0089	.99231	-.02068	.95087
#2	2.4779	49.743	.98967	20.723	.54355	.51168	5.1570	.53164	1.0273	1.0103	-.02092	.97364

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.94610	5.1245	10.966	1.0204	.48246	-.00384	.52873	.99571	-.01260	.54022	F .57111	.48640
Stddev	.01808	.0526	.113	.0178	.00118	.00225	.00239	.01593	.05459	.00382	.00391	.00264
%RSD	1.9114	1.0266	1.0266	1.7405	.24518	58.411	.45280	1.6002	433.30	.70674	.68532	.54192

#1	.93331	5.0873	10.887	1.0079	.48163	-.00543	.52704	.98445	.02600	.53753	.56834	.48453
#2	.95889	5.1617	11.046	1.0330	.48330	-.00226	.53043	1.0070	-.05120	.54292	.57387	.48826

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Fail	Chk Pass				
Value											.50000	
Range											10.490%	

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2856.9	46628.	5781.0
Stddev	2.3	227.	10.7
%RSD	.08006	.48595	.18516

#1	2858.6	46789.	5788.6
#2	2855.3	46468.	5773.4

Sample Name: CCB Acquired: 6/1/2015 16:31:23 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0003	-0.00012	-0.00351	.00184	.00027	.00005	.00027	.00365	-0.00040	-0.00010	.00013
Stddev	.00041	.00079	.00360	.00063	.00008	.00007	.00318	.00286	.00013	.00011	.00002
%RSD	1225.9	649.19	102.54	34.071	28.785	155.44	1195.7	78.226	31.715	106.29	12.053

#1	.00025	.00044	-.00097	.00229	.00033	.00010	-.00198	.00163	-.00049	-.00003	.00014
#2	-.00032	-.00068	-.00605	.00140	.00022	.00000	.00251	.00567	-.00031	-.00018	.00012

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00065	-0.00012	.32171	.00031	.00484	.00021	-0.00021	.10004	-0.00013	-0.00602	-0.00137
Stddev	.00038	.00277	.00447	.00052	.00271	.00013	.00007	.01403	.00010	.00276	.00114
%RSD	58.799	2358.5	1.3897	164.22	56.011	64.191	31.275	14.021	81.318	45.902	82.874

#1	.00092	.00184	.31855	.00068	.00292	.00030	-.00017	.10996	-.00020	-.00407	-.00057
#2	.00038	-.00207	.32487	-.00005	.00676	.00011	-.00026	.09013	-.00005	-.00798	-.00217

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.2663	-0.00134	F -.00803	.01369	.02930	-0.00118	.00002	.00222	-0.00027	.00215	-0.01707
Stddev	.00432	.00322	.00066	.02209	.04726	.00056	.00005	.00132	.00012	.00124	.02175
%RSD	16.207	240.55	8.2376	161.32	161.32	47.866	315.59	59.650	44.856	57.458	127.41

#1	-.02358	.00094	-.00756	-.00193	-.00412	-.00158	-.00002	.00315	-.00018	.00303	-.03245
#2	-.02968	-.00361	-.00850	.02931	.06272	-.00078	.00005	.00128	-.00035	.00128	-.00169

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass							
High Limit			.00500								
Low Limit			-.00500								

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	-0.00033	-0.00001	-0.00659
Stddev	.00067	.00036	.00121
%RSD	200.51	3298.9	18.360

#1	-.00080	-.00026	-.00574
#2	.00014	.00024	-.00745

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2906.7	47502.	5679.9
Stddev	3.4	52.	92.7
%RSD	.11580	.10957	1.6321

#1	2909.1	47539.	5745.5
#2	2904.3	47465.	5614.4

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01109	.11758	.01454	.10074	.01049	.00101	.10438	.21703	.00483	.01100	.00921	.01546
Stddev	.00033	.00012	.00292	.00132	.00024	.00008	.00432	.00365	.00014	.00039	.00006	.00018
%RSD	2.9964	.10348	20.106	1.3084	2.3044	8.2488	4.1395	1.6818	2.9260	3.5555	.70137	1.1809

#1	.01085	.11766	.01660	.10168	.01031	.00107	.10743	.21444	.00493	.01127	.00916	.01533
#2	.01132	.11749	.01247	.09981	.01066	.00095	.10132	.21961	.00473	.01072	.00925	.01559

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10604	3.4812	F .01310	.22399	.01170	.01967	1.1882	.04358	2.9666	.00887	-0.1624	F .00577
Stddev	.00451	.0435	.00037	.00186	.00015	.00003	.0252	.00023	.0067	.00031	.00888	.00171
%RSD	4.2555	1.2504	2.8329	.83208	1.2578	.13422	2.1221	.51992	.22770	3.4452	54.690	29.700

#1	.10285	3.4504	.01284	.22531	.01180	.01965	1.1704	.04374	2.9713	.00865	-.02252	.00698
#2	.10923	3.5119	.01337	.22267	.01160	.01969	1.2061	.04342	2.9618	.00908	-.00996	.00456

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Fail						
Value			.01000									.01000
Range			30.000%									-30.000%

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .00739	.52843	1.1308	.09934	.01043	.01748	.01011	.01853	F .07818	.01132	.02518	F .00897
Stddev	.00009	.01762	.0377	.00235	.00025	.00063	.00053	.00142	.01693	.00099	.00025	.00324
%RSD	1.1819	3.3344	3.3344	2.3625	2.4276	3.6093	5.2455	7.6580	21.657	8.7119	1.0100	36.191

#1	.00745	.51597	1.1042	.10100	.01026	.01703	.01048	.01753	.09015	.01202	.02536	.00667
#2	.00732	.54089	1.1575	.09768	.01061	.01793	.00973	.01954	.06621	.01062	.02500	.01126

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail						
Value	.01500								.06000			.01500
Range	-30.000%								30.000%			-30.000%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2863.9	47093.	5704.1
Stddev	8.7	122.	192.7
%RSD	.30430	.25913	3.3781

#1	2857.8	47007.	5840.4
#2	2870.1	47179.	5567.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00046	.00344	-.00175	.00172	.00089	-.00010	-.00024	.03562	-.00012
Stddev	.00000	.00024	.00102	.00032	.00033	.00011	.00128	.00398	.00026
%RSD	.75379	6.9098	58.267	18.373	37.602	109.85	532.44	11.175	227.24

#1	.00046	.00361	-.00103	.00149	.00112	-.00002	-.00115	.03844	.00007
#2	.00047	.00327	-.00247	.00194	.00065	-.00018	.00066	.03281	-.00030

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00017	-.00007	.00128	.00738	.24849	.00273	.00570	.00053	-.00025
Stddev	.00022	.00005	.00016	.00118	.00102	.00090	.01000	.00006	.00034
%RSD	128.87	75.846	12.651	15.965	.40934	32.979	175.39	11.109	139.71

#1	.00001	-.00003	.00139	.00821	.24777	.00209	-.00137	.00058	.00000
#2	.00032	-.00010	.00116	.00655	.24921	.00336	.01278	.00049	-.00049

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.26696	-.00033	-.00849	.00126	.01360	-.00346	-.00517	.03305	.07073
Stddev	.01715	.00064	.00265	.00140	.00363	.00327	.00048	.00349	.00746
%RSD	6.4225	193.38	31.228	111.32	26.659	94.417	9.1815	10.547	10.547

#1	.27908	-.00079	-.01036	.00225	.01104	-.00578	-.00484	.03552	.07601
#2	.25484	.00012	-.00661	.00027	.01616	-.00115	-.00551	.03059	.06546

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00185	.00023	-.00045	-.00072	.00184	-.02180	-.00071	.00681	-.00439
Stddev	.00079	.00008	.00015	.00019	.00025	.03929	.00016	.00073	.00238
%RSD	42.749	34.215	33.101	26.747	13.508	180.21	23.032	10.785	54.202

#1	-.00241	.00029	-.00034	-.00058	.00202	.00598	-.00060	.00629	-.00271
#2	-.00129	.00018	-.00055	-.00085	.00167	-.04959	-.00083	.00733	-.00607

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2850.1	46530.	5656.3
Stddev	3.3	113.	46.9
%RSD	.11620	.24321	.82842

#1	2852.4	46610.	5623.2
#2	2847.7	46450.	5689.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05217	2.1094	.97464	.97999	1.9165	.04819	1.8868	48.353	.09989
Stddev	.00041	.0009	.00426	.00341	.0303	.00056	.0080	.779	.00024
%RSD	.78912	.04185	.43686	.34810	1.5786	1.1708	.42484	1.6118	.23944

#1	.05246	2.1100	.97765	.97758	1.9379	.04859	1.8812	48.904	.09972
#2	.05188	2.1088	.97163	.98240	1.8951	.04780	1.8925	47.802	.10006

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50395	F .16744	.24736	.98944	50.454	.99423	50.863	.53434	1.0434
Stddev	.00043	.00041	.00063	.01420	.852	.01567	.116	.00134	.0008
%RSD	.08535	.24268	.25529	1.4350	1.6880	1.5764	.22867	.25020	.07141

#1	.50365	.16772	.24691	.99948	51.056	1.0053	50.781	.53339	1.0439
#2	.50426	.16715	.24781	.97940	49.852	.98315	50.945	.53528	1.0428

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.905	.50380	10.264	.49007	1.8821	.48773	1.8845	10.214	21.858
Stddev	.425	.00058	.027	.00151	.0176	.00033	.0157	.003	.006
%RSD	.81820	.11482	.26360	.30753	.93626	.06704	.83514	.02730	.02730

#1	51.605	.50339	10.245	.49114	1.8697	.48749	1.8734	10.212	21.854
#2	52.206	.50420	10.283	.48900	1.8946	.48796	1.8956	10.216	21.863

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0056	.96501	1.0407	1.0429	1.9147	2.0924	.53599	F .55738	.45176
Stddev	.0005	.01486	.0031	.0024	.0060	.0122	.00133	.00051	.00013
%RSD	.02496	1.5398	.29574	.22612	.31365	.58360	.24831	.09141	.02890

#1	2.0053	.97551	1.0385	1.0412	1.9105	2.1010	.53505	.55774	.45167
#2	2.0060	.95450	1.0428	1.0446	1.9190	2.0837	.53694	.55702	.45185

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit								.55500	
Low Limit								.42500	

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2803.5	46148.	5682.5
Stddev	1.1	138.	106.3
%RSD	.03930	.29825	1.8700

#1	2804.3	46245.	5607.4
#2	2802.7	46050.	5757.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00036	.16488	-.00083	.24248	.17346	.00000	-.00139	127.56	.00020
Stddev	.00043	.00096	.00456	.00262	.00023	.00010	.00121	.09	.00003
%RSD	119.30	.58369	552.45	1.0789	.13006	3478.4	87.138	.07279	16.402

#1	.00006	.16420	.00240	.24063	.17330	.00007	-.00224	127.62	.00017
#2	.00067	.16557	-.00405	.24433	.17362	-.00007	-.00053	127.49	.00022

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00407	.00362	.00469	2.8266	14.651	.03605	30.892	.60199	.00426
Stddev	.00057	.00014	.00013	.0018	.026	.00040	.208	.00083	.00004
%RSD	14.007	3.9927	2.8497	.06461	.17710	1.1124	.67280	.13778	.89482

#1	.00447	.00351	.00478	2.8279	14.633	.03577	31.039	.60140	.00424
#2	.00366	.00372	.00459	2.8254	14.670	.03633	30.745	.60257	.00429

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	108.66	.01706	.78103	.00672	55.340	.00363	.00228	3.9253	8.4001
Stddev	.17	.00005	.00448	.00140	.117	.00140	.00351	.0090	.0192
%RSD	.15574	.28488	.57375	20.767	.21231	38.460	154.50	.22823	.22823

#1	108.54	.01709	.78420	.00573	55.257	.00462	-.00021	3.9316	8.4137
#2	108.78	.01703	.77786	.00770	55.423	.00264	.00476	3.9190	8.3866

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00179	1.4587	-.00028	.00381	W -.01034	-.00550	.00211	.08194	-.00484
Stddev	.00049	.0035	.00294	.00089	.00169	.02911	.00080	.00207	.00034
%RSD	27.291	.23739	1033.8	23.436	16.361	529.54	37.891	2.5214	6.9498

#1	.00144	1.4562	.00180	.00318	-.01154	-.02608	.00154	.08048	-.00461
#2	.00213	1.4611	-.00237	.00445	-.00915	.01509	.00267	.08340	-.00508

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000				
Low Limit					-.01000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2766.5	45997.	5700.1
Stddev	5.2	65.	28.5
%RSD	.18635	.14128	.50020

#1	2770.2	46043.	5680.0
#2	2762.9	45951.	5720.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0019	.03411	-0.00077	.04829	.03298	-0.00006	.00066	23.633	-0.00032
Stddev	.00011	.00036	.00128	.00060	.00013	.00003	.00097	.313	.00010
%RSD	54.996	1.0475	165.53	1.2370	.38379	50.817	146.71	1.3255	30.331

#1	-0.0027	.03385	-0.00168	.04787	.03307	-0.00004	-0.00002	23.854	-0.00038
#2	-0.0012	.03436	.00013	.04872	.03289	-0.00008	.00135	23.411	-0.00025

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00106	.00107	.00126	.52990	2.9009	.01003	6.0307	.11755	-0.00007
Stddev	.00038	.00009	.00016	.00448	.0505	.00025	.1003	.00157	.00057
%RSD	35.875	8.3034	12.791	.84571	1.7416	2.4686	1.6633	1.3350	787.01

#1	.00133	.00113	.00137	.52673	2.9366	.01020	5.9598	.11644	.00033
#2	.00079	.00100	.00114	.53307	2.8651	.00985	6.1016	.11866	-0.00048

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.693	.00488	.13890	.00153	10.717	-0.00106	-0.00328	.73497	1.5728
Stddev	.076	.00042	.00263	.00232	.218	.00062	.00438	.00577	.0124
%RSD	.40531	8.6286	1.8944	151.75	2.0363	58.447	133.46	.78556	.78556

#1	18.746	.00458	.13704	-0.00011	10.563	-0.00150	-0.00638	.73089	1.5641
#2	18.639	.00518	.14076	.00317	10.871	-0.00062	-0.00018	.73906	1.5816

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00422	.26771	.00021	-0.00001	-0.00118	-0.02299	-0.00030	.01613	-0.00659
Stddev	.00044	.00392	.00075	.00048	.00035	.00125	.00004	.00020	.00018
%RSD	10.441	1.4656	357.08	3710.9	30.184	5.4181	15.136	1.2319	2.7073

#1	.00390	.27048	.00074	.00032	-0.00092	-0.02387	-0.00026	.01599	-0.00672
#2	.00453	.26493	-0.00032	-0.00035	-0.00143	-0.02210	-0.00033	.01627	-0.00647

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2845.0	46613.	5666.7
Stddev	6.4	29.	109.0
%RSD	.22439	.06203	1.9234

#1	2840.5	46593.	5589.6
#2	2849.6	46634.	5743.7

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05295	2.2559	W 2.6169	.99896	1.2375	2.0964	.04837	F 1.8772	178.57
Stddev	.00054	.0061	.0007	.00752	.0027	.0018	.00012	.0019	.07
%RSD	1.0171	.27169	.02790	.75299	.21433	.08327	.24309	.10042	.03676

#1	.05257	2.2602	2.6164	.99364	1.2393	2.0976	.04846	1.8758	178.53
#2	.05333	2.2516	2.6174	1.0043	1.2356	2.0952	.04829	1.8785	178.62

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00					.10000	
Low Limit			3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10043	.50023	W .16620	.25227	3.8548	65.914	1.0398	82.029	1.1456
Stddev	.00087	.00023	.00006	.00137	.0037	.059	.0003	.190	.0024
%RSD	.86692	.04631	.03555	.54318	.09616	.08901	.02648	.23101	.20823

#1	.10105	.50039	.16616	.25130	3.8574	65.955	1.0396	81.895	1.1440
#2	.09982	.50007	.16625	.25324	3.8521	65.872	1.0400	82.163	1.1473

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.10000						
Low Limit			-.01000						

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0506	162.05	.50874	W 11.364	.47891	59.211	.49778	1.9190	14.402
Stddev	.0005	.10	.00014	.045	.00223	.197	.00103	.0005	.028
%RSD	.04590	.06452	.02764	.39466	.46601	.33285	.20702	.02482	.19317

#1	1.0510	162.12	.50884	11.395	.48049	59.350	.49850	1.9186	14.382
#2	1.0503	161.97	.50864	11.332	.47733	59.071	.49705	1.9193	14.421

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				2.0000					
Low Limit				-1.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	30.819	W 2.0103	2.4722	1.0317	1.0531	1.8657	2.0676	.54082	.62508
Stddev	.060	.0068	.0019	.0003	.0007	.0050	.0269	.00170	.00126
%RSD	.19317	.33889	.07643	.02576	.06797	.26935	1.3011	.31352	.20146

#1	30.777	2.0152	2.4736	1.0315	1.0526	1.8692	2.0866	.53962	.62597
#2	30.861	2.0055	2.4709	1.0319	1.0536	1.8621	2.0486	.54202	.62419

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		2.0000							
Low Limit		-.05000							

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.45225
Stddev	.00027
%RSD	.05955

#1	.45244
#2	.45206

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69895-L-2-C MS Acquired: 6/1/2015 16:46:26 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 279561 6010B

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2749.1	45242.	5703.1
Stddev	4.5	46.	26.1
%RSD	.16510	.10231	.45773
#1	2745.9	45274.	5721.5
#2	2752.3	45209.	5684.6

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05087	2.1929	W 2.5945	.97374	1.1969	2.0790	.04806	F 1.8355	174.05
Stddev	.00064	.0166	.0236	.00139	.0053	.0150	.00034	.0096	1.19
%RSD	1.2657	.75595	.90820	.14296	.44660	.72359	.71319	.52434	.68235

#1	.05133	2.2046	2.5778	.97473	1.2007	2.0896	.04830	1.8423	174.89
#2	.05042	2.1812	2.6112	.97276	1.1931	2.0684	.04782	1.8287	173.21

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00					.10000	
Low Limit			3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09777	.48823	W .16617	.24278	3.7404	65.120	1.0285	78.288	1.0959
Stddev	.00019	.00314	.00033	.00116	.0160	.328	.0044	.446	.0100
%RSD	.19122	.64268	.19778	.47822	.42903	.50408	.42728	.57026	.90978

#1	.09791	.49045	.16640	.24360	3.7517	65.352	1.0316	78.604	1.1030
#2	.09764	.48602	.16594	.24196	3.7290	64.888	1.0254	77.973	1.0889

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.10000						
Low Limit			-.01000						

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0206	158.35	.49507	W 11.068	.46555	56.605	.48059	1.8715	14.077
Stddev	.0042	1.11	.00494	.084	.00424	.340	.00161	.0062	.052
%RSD	.40886	.70211	.99741	.76003	.91041	.60008	.33468	.32974	.36654

#1	1.0235	159.13	.49856	11.128	.46854	56.846	.48173	1.8758	14.041
#2	1.0176	157.56	.49158	11.009	.46255	56.365	.47945	1.8671	14.114

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				2.0000					
Low Limit				-1.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	30.125	1.9510	2.4204	.99869	1.0144	1.8192	1.9984	.52355	.60075
Stddev	.110	.0096	.0168	.01160	.0086	.0103	.0274	.00283	.00761
%RSD	.36654	.49086	.69374	1.1611	.85195	.56503	1.3695	.54091	1.2661

#1	30.047	1.9578	2.4322	1.0069	1.0205	1.8265	1.9791	.52555	.60613
#2	30.203	1.9443	2.4085	.99049	1.0082	1.8120	2.0178	.52154	.59537

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.44615
Stddev	.00152
%RSD	.34009

#1	.44723
#2	.44508

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69895-L-2-D MSD Acquired: 6/1/2015 16:48:49 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 279561 6010B

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2811.4	46718.	5757.3
Stddev	15.0	370.	2.3
%RSD	.53507	.79302	.03934
#1	2800.8	46456.	5758.9
#2	2822.0	46979.	5755.7

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .01532	k 161.67	k .18870	4.6236	8.1088	k .00670	k .03995	F 1952.9	k .00452
Stddev	.00622	.45	.00436	.0050	.1092	.00036	.07393	12.3	.00159
%RSD	40.588	.27740	2.3092	.10714	1.3464	5.3009	185.03	.63044	35.101

#1	.01092	161.36	.19178	4.6271	8.1860	.00645	-.01232	1961.6	.00340
#2	k .01971	k 161.99	k .18561	4.6201	8.0316	k .00695	k .09223	1944.2	k .00564

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit								1000.0	
Low Limit								-.10000	

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .30521	W .40645	k .59215	kW 582.66	W 256.33	.14330	k 203.25	^ *****	k .03929
Stddev	.01564	.00045	.00209	.23	.48	.00230	.45	----	.00109
%RSD	5.1252	.10970	.35234	.03925	.18835	1.6075	.22268	----	2.7727

#1	.29415	.40677	.59067	582.50	255.99	.14167	202.93	72.566	.04006
#2	k .31627	.40613	k .59362	k 582.82	256.67	.14493	k 203.57	^ ----	k .03852

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.10000		500.00	100.00				
Low Limit		-.01000		40.000	-50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 724.54	k .25425	W 31.944	k .40437	k 73.016	k .01865	k .04651	k 43.056	k 92.140
Stddev	.89	.00295	.018	.02099	.033	.01824	.01528	.045	.097
%RSD	.12315	1.1607	.05792	5.1900	.04561	97.831	32.844	.10537	.10537

#1	723.91	.25216	31.931	.38953	72.993	.00575	.03571	43.088	92.209
#2	725.17	k .25633	31.957	k .41921	k 73.040	k .03154	k .05732	k 43.024	k 92.071

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass					
High Limit	500.00		2.0000						
Low Limit	11.000		-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .06226	W 10.592	k .23761	kW 11.197	kF -.03292	kF -.34349	k .76064	3.5007	k .03496
Stddev	.01300	.097	.25789	.012	.00972	.02348	.00418	.0111	.00478
%RSD	20.881	.91796	108.53	.10954	29.526	6.8363	.54978	.31661	13.679

#1	.07145	10.523	.05526	11.189	-.02605	-.32688	.76360	3.4929	.03834
#2	k .05307	10.660	k .41997	k 11.206	k -.03979	k -.36009	k .75769	3.5086	k .03158

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		5.0000		10.000	20.000	50.000			
Low Limit		-.01000		-.01000	-.02000	-.10000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3279.5	54096.	7394.2
Stddev	1.4	262.	18.1
%RSD	.04318	.48416	.24472

#1	3278.5	54281.	7381.4
#2	3280.5	53910.	7407.0

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00261	44.691	.31118	W 13.167	1.5519	.00112	-0.00310	463.75	.00008
Stddev	.00094	.468	.01113	.005	.0102	.00001	.00094	2.10	.00043
%RSD	35.814	1.0477	3.5776	.03474	.65689	1.0738	30.213	.45358	531.14

#1	.00195	45.022	.30330	13.164	1.5591	.00112	-.00376	462.26	.00038
#2	.00328	44.360	.31905	13.170	1.5447	.00113	-.00244	465.24	-.00022

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.01000					

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08163	W .29578	.14640	142.61	F 614.97	.13088	144.20	W 19.482	.02034
Stddev	.00005	.00252	.00102	1.09	5.20	.00015	.03	.051	.00091
%RSD	.06710	.85225	.69688	.76366	.84619	.11274	.02206	.26151	4.4864

#1	.08159	.29399	.14568	143.38	618.65	.13077	144.22	19.518	.02098
#2	.08166	.29756	.14713	141.84	611.29	.13098	144.17	19.446	.01969

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit		.10000			500.00			10.000	
Low Limit		-.01000			-2.0000			-.01000	

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1911.9	.16776	W 11.970	.09018	60.565	.04170	.01952	W 66.384	142.06
Stddev	16.6	.00196	.106	.00070	.075	.00323	.00475	.466	1.00
%RSD	.87002	1.1662	.88297	.77968	.12316	7.7464	24.327	.70154	.70154

#1	1923.7	.16914	12.045	.09068	60.512	.03942	.01616	66.714	142.77
#2	1900.2	.16638	11.895	.08969	60.618	.04399	.02287	66.055	141.36

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit	500.00		2.0000					50.000	
Low Limit	11.000		-1.0000					-.10000	

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05362	2.6304	.01316	4.0030	W -.01643	W -.08738	.31476	.93000	.08941
Stddev	.00022	.0189	.00110	.0064	.00024	.03107	.00155	.00177	.00285
%RSD	.40393	.71853	8.3943	.15950	1.4853	35.556	.49203	.19013	3.1883

#1	.05377	2.6437	.01238	3.9984	-.01625	-.06541	.31366	.92875	.09143
#2	.05346	2.6170	.01394	4.0075	-.01660	-.10935	.31585	.93125	.08740

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000	45.000			
Low Limit					-.01000	-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2628.8	42712.	5711.9
Stddev	11.2	15.	37.6
%RSD	.42463	.03432	.65803

#1	2620.9	42723.	5685.4
#2	2636.7	42702.	5738.5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00055	40.761	.52566	W 21.074	1.1521	.00121	-.00703	351.62	-.00038
Stddev	.00027	.907	.00532	.047	.0237	.00002	.00222	8.51	.00019
%RSD	49.913	2.2245	1.0118	.22124	2.0534	1.8839	31.574	2.4197	51.031

#1	.00035	41.402	.52942	21.041	1.1689	.00119	-.00860	357.64	-.00024
#2	.00074	40.120	.52189	21.107	1.1354	.00122	-.00546	345.61	-.00051

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.01000					

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07520	W .43985	.10903	212.23	F 999.76	.21192	177.75	W 10.210	.02560
Stddev	.00116	.00707	.00031	4.01	25.12	.00306	.24	.023	.00154
%RSD	1.5438	1.6075	.28334	1.8888	2.5122	1.4422	.13498	.22850	6.0313

#1	.07438	.43485	.10882	215.06	1017.5	.21408	177.58	10.194	.02451
#2	.07602	.44485	.10925	209.39	982.00	.20976	177.92	10.227	.02669

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit		.10000			500.00			10.000	
Low Limit		-.01000			-2.0000			-.01000	

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 3124.8	.23430	W 18.162	.08045	78.218	.05787	.02240	W 74.165	158.71
Stddev	63.7	.00541	.014	.00390	.055	.00130	.00110	1.434	3.07
%RSD	2.0391	2.3098	.07587	4.8472	.06977	2.2547	4.9067	1.9336	1.9336

#1	3169.8	.23047	18.152	.07769	78.180	.05695	.02318	75.179	160.88
#2	3079.7	.23812	18.171	.08321	78.257	.05880	.02162	73.151	156.54

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit	500.00		2.0000					50.000	
Low Limit	11.000		-1.0000					-.10000	

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09099	1.8599	.02572	3.5712	W -.01507	F -.13865	.39992	1.7059	.21062
Stddev	.00156	.0377	.00082	.0086	.00080	.02228	.00060	.0059	.00251
%RSD	1.7120	2.0281	3.2052	.23941	5.3060	16.068	.15078	.34788	1.1914

#1	.08989	1.8865	.02514	3.5651	-.01451	-.12290	.39950	1.7017	.21239
#2	.09210	1.8332	.02631	3.5772	-.01564	-.15440	.40035	1.7101	.20884

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000	50.000			
Low Limit					-.01000	-.10000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2523.7	41312.	5579.3
Stddev	3.4	186.	92.8
%RSD	.13577	.44912	1.6629

#1	2521.3	41444.	5513.7
#2	2526.1	41181.	5644.9

Sample Name: CCVH-3294468 Acquired: 6/1/2015 17:02:58 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00333	51.472	.00321	.03506	.00143	.00003	.97689	.03943	-.00037	-.00049	.00082	-.00271	49.796
Stddev	.00021	1.466	.00598	.00174	.00014	.00011	.00636	.00136	.00001	.00025	.00004	.00029	1.209
%RSD	6.4163	2.8492	186.02	4.9665	9.7544	360.94	.65126	3.4571	1.8335	51.036	5.0903	10.877	2.4275

#1	.00318	52.509	.00744	.03629	.00153	-.00005	.98139	.04039	-.00037	-.00066	.00085	-.00250	50.651
#2	.00348	50.435	-.00101	.03383	.00134	.00011	.97239	.03846	-.00036	-.00031	.00079	-.00291	48.941

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0860	.00501	.05614	-.00133	-.00079	251.49	.00322	-.00555	-.00023	4.7829	-.01295	.00379	.33784
Stddev	.0084	.00154	.00821	.00004	.00038	7.72	.00026	.00312	.00144	.0216	.00080	.00907	.03704
%RSD	.77228	30.656	14.624	3.0225	48.388	3.0706	8.0492	56.173	641.23	.45051	6.1673	239.62	10.964

#1	1.0801	.00609	.06194	-.00131	-.00052	256.95	.00304	-.00335	-.00125	4.7677	-.01351	.01020	.36403
#2	1.0919	.00392	.05033	-.00136	-.00107	246.03	.00341	-.00776	.00080	4.7982	-.01238	-.00263	.31165

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.72298	-.00293	.00040	5.2190	-.01215	.00396	10.412	.00295	-.00207	-.15443
Stddev	.07927	.00038	.00005	.0080	.00060	.00011	.001	.00017	.00004	.00132
%RSD	10.964	12.885	13.361	.15263	4.9520	2.6868	.01020	5.8809	2.0177	.85306

#1	.77903	-.00320	.00044	5.2246	-.01173	.00403	10.413	.00283	-.00204	-.15536
#2	.66692	-.00267	.00036	5.2133	-.01258	.00388	10.411	.00308	-.00210	-.15350

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2835.4	46225.	5661.6
Stddev	1.5	48.	181.1
%RSD	.05162	.10385	3.1984

#1	2834.4	46191.	5533.5
#2	2836.5	46259.	5789.6

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52726	F .56871	1.0071	.52310	.49310	.49589	.00335	5.1527	.50990	.53328	F .43733
Stddev	.00219	.00017	.0046	.00055	.00080	.00173	.00032	.0037	.00101	.00177	.00048
%RSD	.41598	.02901	.45929	.10576	.16185	.34863	9.5931	.07159	.19821	.33199	.11021

#1	.52571	.56883	1.0038	.52349	.49253	.49467	.00313	5.1553	.50918	.53203	.43699
#2	.52881	.56859	1.0104	.52271	.49366	.49711	.00358	5.1501	.51061	.53453	.43767

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value		.50000									.50000
Range		10.490%									-10.490%

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49330	2.5465	51.877	1.0231	20.929	W .55151	.51471	F 5.7015	.53368	1.0290	1.0090
Stddev	.00155	.0086	.015	.0049	.017	.00077	.00119	.0205	.00223	.0095	.0030
%RSD	.31438	.33711	.02833	.47620	.08113	.14037	.23142	.35945	.41696	.92173	.29835

#1	.49220	2.5525	51.867	1.0196	20.917	.55096	.51387	5.7160	.53211	1.0222	1.0069
#2	.49440	2.5404	51.888	1.0265	20.941	.55206	.51555	5.6870	.53525	1.0357	1.0112

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass				
Value						.50000		5.0000			
Range						10.000%		10.490%			

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00968	.96166	.94183	F 5.7196	F 12.240	1.0277	.49684	-.00460	.53944	.99870	-.02763
Stddev	.00289	.00036	.00384	.0187	.040	.0000	.00093	.00166	.00116	.00235	.02773
%RSD	29.874	.03733	.40719	.32746	.32746	.00161	.18676	36.094	.21582	.23564	100.36

#1	-.01172	.96141	.94454	5.7064	12.212	1.0277	.49618	-.00343	.53861	.99704	-.04724
#2	-.00763	.96191	.93912	5.7329	12.268	1.0277	.49749	-.00577	.54026	1.0004	-.00802

Check ?	None	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None
Value				5.0000	10.700						
Range				10.490%	10.490%						

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	W .55173	F .58823	.49286
Stddev	.00204	.00485	.00116
%RSD	.36934	.82480	.23615

#1	.55029	.58480	.49368
#2	.55317	.59166	.49203

Check ?	Chk Warn	Chk Fail	Chk Pass
Value	.50000	.50000	
Range	10.000%	10.490%	

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2826.3	46091.	5557.9
Stddev	5.0	66.	9.9
%RSD	.17786	.14232	.17755

#1	2829.8	46137.	5550.9
#2	2822.7	46045.	5564.9

Sample Name: CCB Acquired: 6/1/2015 17:08:04 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00037	-.00044	-.00206	.01755	.00057	-.00011	.00449	.01954	-.00040	.00024	.00022
Stddev	.00034	.00011	.00242	.00042	.00050	.00000	.00131	.00232	.00006	.00017	.00014
%RSD	94.285	25.758	117.29	2.3759	87.559	2.6862	29.196	11.871	14.755	69.273	63.526

#1	.00061	-.00036	-.00377	.01785	.00022	-.00011	.00356	.01790	-.00036	.00036	.00012
#2	.00012	-.00052	-.00035	.01726	.00093	-.00010	.00542	.02118	-.00044	.00012	.00032

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00021	.00168	F .51288	.00137	.00904	.00028	-.00014	.34876	.00036	-.00689	-.00201
Stddev	.00003	.00118	.03063	.00054	.00071	.00004	.00028	.00832	.00008	.00070	.00028
%RSD	14.594	70.191	5.9715	39.789	7.7969	12.939	198.65	2.3868	22.331	10.144	13.968

#1	.00023	.00252	.49122	.00175	.00954	.00025	.00006	.35465	.00030	-.00640	-.00220
#2	.00019	.00085	.53454	.00098	.00855	.00030	-.00033	.34287	.00041	-.00739	-.00181

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass							
High Limit			.50000								
Low Limit			-.50000								

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01943	-.00027	F -.00557	.09840	.21059	-.00038	.00026	-.00150	-.00057	.00104	.01024
Stddev	.00030	.00083	.00060	.00202	.00431	.00040	.00005	.00105	.00079	.00084	.00233
%RSD	1.5217	308.52	10.789	2.0479	2.0479	104.91	20.210	69.584	137.78	80.760	22.762

#1	-.01964	-.00086	-.00599	.09698	.20754	-.00010	.00029	-.00224	-.00001	.00044	.01189
#2	-.01922	.00032	-.00514	.09983	.21364	-.00066	.00022	-.00076	-.00113	.00163	.00860

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass							
High Limit			.00500								
Low Limit			-.00500								

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00011	-.00013	-.00411
Stddev	.00007	.00002	.00016
%RSD	58.165	17.125	4.0014

#1	.00016	-.00014	-.00422
#2	.00007	-.00011	-.00399

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2861.2	46778.	5582.7
Stddev	8.8	69.	13.3
%RSD	.30896	.14849	.23857

#1	2867.4	46827.	5573.3
#2	2854.9	46729.	5592.1

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01134	.11733	.01124	.11390	.01031	.00095	.10180	.22091	.00487	.01118	.00896	.01561
Stddev	.00002	.00011	.00561	.00076	.00043	.00001	.00381	.00026	.00009	.00001	.00002	.00008
%RSD	.16426	.09718	49.886	.66852	4.1454	1.3009	3.7452	.11867	1.9363	.11867	.22621	.50671

#1	.01136	.11741	.00728	.11336	.01001	.00096	.09911	.22110	.00480	.01117	.00895	.01555
#2	.01133	.11725	.01521	.11444	.01061	.00094	.10450	.22072	.00493	.01119	.00898	.01567

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10321	3.6218	F .01372	.22716	.01184	.01983	F 1.3674	.04354	2.9364	.00639	-0.1581	.00812
Stddev	.00372	.0192	.00236	.00670	.00011	.00014	.0052	.00035	.0088	.00085	.01101	.00330
%RSD	3.6030	.52942	17.217	2.9487	.95971	.72440	.38312	.79742	.29909	13.308	69.619	40.671

#1	.10058	3.6082	.01205	.23190	.01192	.01993	1.3711	.04329	2.9302	.00579	-.00803	.00578
#2	.10583	3.6354	.01539	.22242	.01176	.01972	1.3637	.04378	2.9426	.00699	-.02360	.01046

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value			.01000				1.0000					
Range			30.000%				30.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .00988	.59522	1.2738	.10127	.01036	.01581	.00983	.01661	F .03200	.01078	F .02634	.01075
Stddev	.00534	.02214	.0474	.00109	.00000	.00243	.00022	.00021	.00765	.00066	.00095	.00124
%RSD	54.033	3.7191	3.7191	1.0810	.01583	15.372	2.2139	1.2731	23.903	6.1524	3.6005	11.556

#1	.00611	.61088	1.3073	.10049	.01036	.01409	.00968	.01676	.02659	.01031	.02701	.01163
#2	.01366	.57957	1.2403	.10204	.01036	.01752	.00999	.01646	.03741	.01125	.02567	.00987

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass						
Value	.01500								.06000		.02000	
Range	-30.000%								-30.000%		30.000%	

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2846.1	46089.	5633.1
Stddev	.8	121.	37.9
%RSD	.02943	.26358	.67204

#1	2845.5	46175.	5659.8
#2	2846.7	46003.	5606.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00079	.12861	-.00401	.74437	.05420	-.00012	-.00550	390.68	.00021
Stddev	.00041	.00152	.00722	.00917	.00085	.00006	.00186	.57	.00031
%RSD	51.785	1.1820	179.81	1.2323	1.5615	48.814	33.914	.14702	150.86

#1	.00050	.12968	.00109	.75086	.05480	-.00008	-.00418	391.08	-.00001
#2	.00108	.12753	-.00912	.73789	.05361	-.00017	-.00681	390.27	.00043

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00075	.00745	.00308	3.2604	5.0166	.07331	166.76	2.6305	.00857
Stddev	.00009	.00026	.00007	.0051	.0036	.00175	.14	.0025	.00042
%RSD	12.461	3.4849	2.3467	.15570	.07233	2.3867	.08468	.09413	4.8615

#1	-.00081	.00726	.00303	3.2568	5.0191	.07207	166.85	2.6323	.00886
#2	-.00068	.00763	.00313	3.2640	5.0140	.07455	166.66	2.6288	.00827

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	321.47	.05809	.31258	.00052	W 197.60	.00982	.00429	30.044	64.295
Stddev	2.91	.00083	.00592	.00064	.31	.00193	.00822	.042	.090
%RSD	.90558	1.4274	1.8927	122.77	.15729	19.634	191.74	.14064	.14064

#1	323.53	.05867	.31677	.00097	197.82	.01119	.01009	30.014	64.231
#2	319.41	.05750	.30840	.00007	197.38	.00846	-.00152	30.074	64.359

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					180.00				
Low Limit					-15000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.53252	4.5546	.00052	.00547	W -.01391	-.03689	-.00082	.06910	-.00394
Stddev	.00446	.0398	.00011	.00017	.00018	.04290	.00068	.00050	.00257
%RSD	.83680	.87467	22.152	3.1677	1.2655	116.29	82.405	.72299	65.350

#1	.53567	4.5828	.00060	.00534	-.01403	-.06722	-.00034	.06945	-.00212
#2	.52937	4.5264	.00043	.00559	-.01378	-.00656	-.00130	.06874	-.00576

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000				
Low Limit					-0.1000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2562.2	42511.	5446.9
Stddev	6.4	32.	2.0
%RSD	.25043	.07430	.03726

#1	2557.6	42534.	5448.4
#2	2566.7	42489.	5445.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00057	.11791	-.00491	4.7660	.03247	-.00010	-.00080	428.80	.00010
Stddev	.00076	.00039	.00276	.0072	.00051	.00015	.00319	15.61	.00018
%RSD	133.67	.33333	56.318	.15012	1.5748	159.14	398.02	3.6407	179.31

#1	.00003	.11818	-.00686	4.7711	.03283	.00001	.00146	439.84	.00023
#2	.00111	.11763	-.00295	4.7610	.03211	-.00021	-.00306	417.76	-.00003

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00162	.00965	.00190	11.142	21.171	.48965	292.05	7.2398	-.00129
Stddev	.00012	.00036	.00097	.104	.103	.00359	.38	.0080	.00001
%RSD	7.2045	3.7286	50.779	.93340	.48776	.73287	.13100	.11079	.59117

#1	-.00170	.00940	.00258	11.216	21.244	.49218	291.78	7.2341	-.00129
#2	-.00154	.00991	.00122	11.069	21.098	.48711	292.32	7.2455	-.00130

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1886.6	.03548	1.3382	.00138	F 1030.0	.00830	-.00129	24.363	52.137
Stddev	16.7	.00051	.0000	.00180	2.6	.00064	.00200	.133	.286
%RSD	.88555	1.4359	.00309	130.64	.25337	7.7115	155.32	.54767	.54767

#1	1898.4	.03512	1.3381	.00011	1031.9	.00785	.00013	24.457	52.339
#2	1874.8	.03584	1.3382	.00266	1028.2	.00875	-.00270	24.269	51.935

Check ?	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	500.00				200.00				
Low Limit	11.000				-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00249	W 7.2901	.00192	.00863	W -.01194	-.04503	.00118	.02827	-.00491
Stddev	.00164	.0149	.00284	.00046	.00031	.00277	.00021	.00176	.00156
%RSD	65.943	.20447	147.56	5.2997	2.6209	6.1489	17.855	6.2294	31.742

#1	-.00366	7.3007	-.00008	.00896	-.01172	-.04698	.00103	.02951	-.00602
#2	-.00133	7.2796	.00393	.00831	-.01216	-.04307	.00133	.02702	-.00381

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		5.0000			5.0000				
Low Limit		-.01000			-.01000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2464.9	40352.	5283.3
Stddev	16.1	153.	90.3
%RSD	.65435	.37862	1.7084

#1	2453.5	40460.	5219.5
#2	2476.3	40244.	5347.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00126	.04114	-.00384	.08609	.08465	-.00003	.00001	178.10	-.00016
Stddev	.00103	.00049	.00142	.00020	.00026	.00009	.00337	.16	.00019
%RSD	81.929	1.1860	37.087	.23037	.30389	320.56	65218.	.08938	120.72

#1	.00053	.04079	-.00485	.08623	.08483	-.00009	-.00238	177.99	-.00030
#2	.00198	.04148	-.00283	.08595	.08447	.00004	.00239	178.22	-.00002

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00000	.00088	.00298	.19263	6.9503	.01385	30.680	.07390	-.00284
Stddev	.00029	.00040	.00052	.00010	.0535	.00084	.115	.00070	.00025
%RSD	56665.	46.151	17.337	.05107	.76940	6.0441	.37486	.94771	8.7708

#1	-.00021	.00116	.00334	.19256	6.9125	.01444	30.762	.07440	-.00267
#2	.00021	.00059	.00261	.19270	6.9881	.01326	30.599	.07341	-.00302

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	58.700	.00521	.02885	.00398	87.893	.00398	-.00161	9.0752	19.421
Stddev	.640	.00071	.00355	.00111	.192	.00035	.00369	.0448	.096
%RSD	1.0906	13.720	12.315	27.885	.21812	8.8477	228.94	.49319	.49319

#1	58.247	.00571	.03136	.00477	87.757	.00373	-.00422	9.0436	19.353
#2	59.152	.00470	.02634	.00320	88.028	.00423	.00100	9.1069	19.489

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00038	3.1036	-.00043	.00021	-.00638	.01894	.00044	.00155	-.00762
Stddev	.00075	.0013	.00090	.00089	.00105	.02665	.00073	.00008	.00070
%RSD	195.66	.04294	210.79	414.57	16.436	140.70	163.65	5.0805	9.1846

#1	-.00092	3.1027	-.00107	-.00041	-.00712	.03779	.00096	.00160	-.00812
#2	.00015	3.1046	.00021	.00084	-.00564	.00010	-.00007	.00149	-.00713

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2726.2	45245.	5534.3
Stddev	7.0	226.	3.7
%RSD	.25858	.49942	.06713

#1	2731.2	45085.	5531.6
#2	2721.2	45405.	5536.9

Sample Name: 280-69872-C-3-A Acquired: 6/1/2015 17:22:28 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 279561 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00092	.05594	-.00575	.08626	.01621	-.00018	-.00053	268.55	-.00023
Stddev	.00090	.00013	.00349	.00051	.00024	.00002	.00252	2.78	.00001
%RSD	98.702	.22984	60.776	.59310	1.4712	9.5272	473.43	1.0349	3.8287

#1	.00156	.05603	-.00328	.08589	.01638	-.00020	.00125	270.52	-.00022
#2	.00028	.05585	-.00822	.08662	.01604	-.00017	-.00232	266.59	-.00023

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00058	.00101	.00146	.05569	4.4871	.02812	46.005	.00177	-.00379
Stddev	.00038	.00001	.00031	.00171	.0146	.00118	.031	.00003	.00024
%RSD	66.201	.91521	21.415	3.0673	.32540	4.1985	.06824	1.4351	6.2092

#1	-.00031	.00101	.00168	.05448	4.4974	.02895	45.982	.00179	-.00396
#2	-.00085	.00100	.00124	.05690	4.4768	.02728	46.027	.00175	-.00363

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	257.33	.00529	.00172	.00403	F 232.55	.00560	.00138	11.660	24.952
Stddev	3.12	.00002	.00430	.00165	.58	.00266	.00131	.036	.076
%RSD	1.2105	.34685	249.97	40.898	.25016	47.434	94.731	.30536	.30536

#1	259.54	.00531	-.00132	.00519	232.14	.00372	.00046	11.685	25.006
#2	255.13	.00528	.00476	.00286	232.96	.00748	.00231	11.635	24.898

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00068	W 5.5132	-.00120	.00056	-.00861	.00139	-.00094	.00412	-.00330
Stddev	.00230	.0549	.00081	.00017	.00047	.00637	.00015	.00075	.00120
%RSD	337.75	.99480	67.484	31.054	5.4642	457.39	15.603	18.298	36.288

#1	.00095	5.5520	-.00178	.00068	-.00894	-.00311	-.00105	.00359	-.00415
#2	-.00231	5.4744	-.00063	.00043	-.00828	.00589	-.00084	.00466	-.00246

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		5.0000							
Low Limit		-.01000							

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2661.4	43859.	5409.8
Stddev	7.2	114.	62.7
%RSD	.27138	.26095	1.1599

#1	2666.5	43940.	5365.4
#2	2656.3	43778.	5454.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00097	.65062	-.00749	.04704	.03144	-.00007	-.00128	294.41	-.00025
Stddev	.00039	.00178	.00299	.00111	.00041	.00013	.00118	4.36	.00026
%RSD	40.446	.27326	39.885	2.3600	1.3017	187.71	92.298	1.4803	105.39
#1	.00069	.65187	-.00538	.04782	.03172	-.00016	-.00044	297.49	-.00043
#2	.00125	.64936	-.00960	.04625	.03115	.00002	-.00211	291.33	-.00006

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00037	.00120	.00247	.68256	7.4612	.02252	84.623	.01246	-.00407
Stddev	.00016	.00028	.00085	.00131	.0468	.00085	.114	.00009	.00014
%RSD	43.498	23.306	34.450	.19122	.62660	3.7739	.13454	.69683	3.4621
#1	-.00025	.00140	.00186	.68348	7.4943	.02312	84.542	.01252	-.00417
#2	-.00048	.00100	.00307	.68164	7.4281	.02192	84.703	.01240	-.00397

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 564.53	.00526	.00985	.00469	F 505.03	.00488	.07830	6.6761	14.287
Stddev	7.98	.00047	.00411	.00047	.41	.00014	.00691	.0718	.154
%RSD	1.4144	8.9098	41.769	10.073	.08107	2.8986	8.8248	1.0750	1.0750
#1	570.17	.00559	.00694	.00436	504.74	.00478	.07341	6.7268	14.395
#2	558.88	.00493	.01275	.00502	505.32	.00498	.08319	6.6253	14.178

Check ? High Limit Low Limit
 Chk Warn Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass
 500.00 200.00
 11.000 -20000

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00150	W 6.5385	.00063	.01895	-.00948	W -.05386	.00051	.00238	-.00543
Stddev	.00152	.0941	.00108	.00617	.00175	.00994	.00165	.00040	.00037
%RSD	101.28	1.4392	172.43	32.538	18.416	18.448	325.03	16.731	6.8730
#1	-.00258	6.6051	-.00014	.02331	-.00825	-.06088	.00168	.00266	-.00517
#2	-.00043	6.4720	.00139	.01459	-.01072	-.04683	-.00066	.00210	-.00569

Check ? High Limit Low Limit
 Chk Pass Chk Warn Chk Pass Chk Pass Chk Pass Chk Warn Chk Pass Chk Pass Chk Pass
 5.0000 45.000
 -.01000 -.05000

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2620.7	42891.	5343.3
Stddev	2.1	284.	96.0
%RSD	.08016	.66161	1.7965
#1	2619.3	42691.	5275.5
#2	2622.2	43092.	5411.2

Sample Name: 280-69872-C-5-A Acquired: 6/1/2015 17:27:57 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 279561 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00114	.01833	-.00455	.04892	.04461	-.00019	.00088	271.91	-.00032
Stddev	.00051	.00104	.00457	.00028	.00083	.00002	.00324	1.29	.00015
%RSD	45.029	5.6738	100.49	.56377	1.8538	10.870	367.04	.47432	46.462

#1	.00150	.01906	-.00132	.04872	.04519	-.00018	-.00141	272.82	-.00042
#2	.00078	.01759	-.00778	.04911	.04402	-.00021	.00317	271.00	-.00021

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	.00103	.00144	.03568	3.2985	.02552	31.557	.00269	-.00332
Stddev	.00034	.00013	.00008	.00202	.0765	.00038	.052	.00000	.00036
%RSD	221.61	12.346	5.6205	5.6758	2.3178	1.4793	.16549	.15144	10.931

#1	-.00040	.00112	.00150	.03711	3.2444	.02578	31.594	.00269	-.00358
#2	.00009	.00094	.00138	.03424	3.3526	.02525	31.520	.00269	-.00307

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	145.28	.00485	.01480	.00292	165.69	.00311	W -.00594	11.146	23.853
Stddev	.96	.00065	.00110	.00340	.20	.00048	.00411	.048	.103
%RSD	.66397	13.423	7.4133	116.44	.12243	15.541	69.077	.43138	.43138

#1	145.96	.00531	.01558	.00533	165.83	.00277	-.00885	11.112	23.780
#2	144.60	.00439	.01403	.00052	165.54	.00345	-.00304	11.180	23.925

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							5.0000		
Low Limit							-.00500		

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00140	4.5826	-.00155	-.00014	-.00859	.00012	-.00029	.00165	-.00612
Stddev	.00021	.0276	.00419	.00029	.00223	.01116	.00068	.00023	.00066
%RSD	15.275	.60160	271.02	204.47	26.021	9062.7	236.27	13.827	10.788

#1	-.00156	4.6021	-.00451	-.00035	-.01017	.00801	.00019	.00181	-.00565
#2	-.00125	4.5631	.00142	.00006	-.00701	-.00777	-.00077	.00149	-.00659

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2668.5	43950.	5500.0
Stddev	.3	26.	13.0
%RSD	.00962	.05993	.23666

#1	2668.7	43931.	5490.8
#2	2668.4	43968.	5509.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00050	.05123	-.00096	.03196	.19185	.00002	.00042	52.575	.00011
Stddev	.00089	.00021	.00314	.00027	.00309	.00005	.00019	.731	.00028
%RSD	177.62	.40039	328.78	.85835	1.6093	271.38	44.278	1.3906	248.91

#1	.00113	.05109	.00127	.03215	.19403	-.00002	.00029	53.092	.00031
#2	-.00013	.05138	-.00318	.03177	.18966	.00005	.00056	52.058	-.00009

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	.00598	.00229	.05433	3.2847	.01855	12.242	.00483	-.00080
Stddev	.00002	.00001	.00039	.00153	.0149	.00067	.004	.00001	.00011
%RSD	71.570	.12991	16.821	2.8124	.45427	3.6163	.03152	.10855	14.005

#1	-.00004	.00599	.00202	.05325	3.2952	.01807	12.244	.00483	-.00088
#2	-.00001	.00598	.00257	.05541	3.2741	.01902	12.239	.00483	-.00072

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.211	.00277	.01942	.00126	13.943	-.00072	W -.00954	11.012	23.566
Stddev	.458	.00076	.00018	.00060	.022	.00133	.00083	.007	.016
%RSD	2.2673	27.402	.90517	47.790	.16021	184.53	8.7419	.06789	.06789

#1	20.535	.00224	.01929	.00168	13.958	-.00166	-.00895	11.007	23.554
#2	19.887	.00331	.01954	.00083	13.927	.00022	-.01013	11.017	23.577

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							5.0000		
Low Limit							-.00500		

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00100	.47172	-.00103	.00066	-.00132	-.02655	.00373	.00309	-.00380
Stddev	.00123	.00629	.00026	.00017	.00013	.02470	.00020	.00070	.00196
%RSD	122.33	1.3336	25.429	26.387	10.153	93.027	5.4243	22.577	51.698

#1	-.00014	.47617	-.00122	.00078	-.00142	-.04401	.00387	.00260	-.00519
#2	-.00187	.46727	-.00085	.00053	-.00123	-.00909	.00359	.00358	-.00241

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2797.0	45599.	5509.4
Stddev	7.4	16.	129.9
%RSD	.26571	.03556	2.3574

#1	2802.3	45588.	5417.5
#2	2791.8	45611.	5601.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0007	.21229	.00322	.03041	.19523	-0.0011	.00072	53.026	-0.0013
Stddev	.00016	.00112	.00011	.00011	.00169	.00002	.00018	.513	.00022
%RSD	232.98	.52588	3.5383	.35821	.86673	17.625	25.345	.96805	176.10

#1	-0.0018	.21308	.00330	.03033	.19404	-0.0010	.00085	52.663	.00003
#2	.00004	.21150	.00314	.03049	.19643	-0.0012	.00059	53.389	-0.0028

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0017	.00669	.00156	.19899	3.2667	.02025	12.185	.00884	-0.0058
Stddev	.00030	.00013	.00063	.00424	.0227	.00068	.020	.00016	.00048
%RSD	176.47	2.0001	40.270	2.1297	.69545	3.3706	.16587	1.7954	83.852

#1	-0.0038	.00678	.00200	.19599	3.2506	.02073	12.171	.00895	-0.0024
#2	.00004	.00660	.00111	.20198	3.2827	.01977	12.200	.00873	-0.0092

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.892	.00299	.02138	-0.00058	13.870	.00034	-0.00207	11.380	24.354
Stddev	.132	.00023	.00246	.00224	.029	.00145	.00565	.062	.134
%RSD	.66411	7.8596	11.484	384.68	.20566	429.73	272.82	.54902	.54902

#1	19.799	.00315	.01965	.00100	13.850	.00136	.00192	11.336	24.260
#2	19.985	.00282	.02312	-.00217	13.890	-0.0069	-0.00607	11.425	24.449

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00038	.47476	.00001	.00845	-0.00375	-0.01392	.00438	.00411	-0.00539
Stddev	.00190	.00581	.00141	.00025	.00319	.00931	.00024	.00030	.00194
%RSD	494.22	1.2240	10990.	2.9511	85.068	66.895	5.4047	7.2324	35.956

#1	-0.0096	.47065	.00101	.00828	-0.0149	-0.00734	.00454	.00390	-0.00676
#2	.00173	.47887	-0.00099	.00863	-0.00600	-0.02051	.00421	.00432	-0.00402

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2805.9	46002.	5449.3
Stddev	1.8	246.	72.1
%RSD	.06364	.53473	1.3232

#1	2804.6	45828.	5500.3
#2	2807.2	46176.	5398.4

Sample Name: 280-69905-B-2-A Acquired: 6/1/2015 17:35:51 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 279561 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00028	.11031	-.00448	.02546	.15260	-.00005	-.00214	42.260	.00001
Stddev	.00059	.00010	.00181	.00074	.00250	.00001	.00190	.446	.00011
%RSD	206.70	.09189	40.474	2.9119	1.6367	28.279	88.730	1.0564	856.27

#1	-.00013	.11038	-.00576	.02599	.15437	-.00006	-.00080	42.575	.00009
#2	.00070	.11024	-.00320	.02494	.15083	-.00004	-.00348	41.944	-.00006

Check ? Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00058	.00154	.00077	.11735	2.5655	.01926	10.846	.43545	-.00085
Stddev	.00010	.00011	.00009	.00130	.0929	.00103	.039	.00190	.00001
%RSD	16.685	7.1319	12.113	1.1073	3.6202	5.3409	.36183	.43649	.93069

#1	.00065	.00162	.00084	.11827	2.4999	.01853	10.874	.43679	-.00084
#2	.00051	.00146	.00070	.11643	2.6312	.01999	10.818	.43410	-.00085

Check ? Chk Pass
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.594	.00331	.01341	-.00003	15.700	-.00312	-.00182	10.940	23.411
Stddev	.293	.00010	.00104	.00046	.082	.00147	.00039	.021	.045
%RSD	1.6659	3.0883	7.7307	1697.9	.51943	47.140	21.399	.19198	.19198

#1	17.387	.00324	.01268	-.00035	15.758	-.00417	-.00154	10.925	23.379
#2	17.801	.00338	.01415	.00030	15.642	-.00208	-.00209	10.955	23.443

Check ? Chk Pass
 High Limit
 Low Limit

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	.37007	-.00012	.00339	-.00591	-.01499	.00265	.00713	-.00395
Stddev	.00051	.00387	.00116	.00016	.00037	.03100	.00087	.00042	.00196
%RSD	4964.9	1.0452	997.98	4.6447	6.2203	206.76	32.948	5.9292	49.743

#1	-.00037	.37281	.00071	.00350	-.00565	-.03692	.00327	.00742	-.00256
#2	.00035	.36734	-.00094	.00328	-.00617	.00693	.00203	.00683	-.00534

Check ? Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2817.0	46125.	5475.5
Stddev	3.2	157.	62.3
%RSD	.11259	.34016	1.1374

#1	2819.3	46014.	5431.5
#2	2814.8	46236.	5519.6

Sample Name: 280-69905-B-3-A Acquired: 6/1/2015 17:38:29 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 279561 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00051	.04268	-.00189	.03064	.14502	-.00010	.00035	38.514	.00011
Stddev	.00067	.00032	.00735	.00004	.00102	.00009	.00030	.123	.00000
%RSD	131.92	.75133	388.39	.12507	.70369	92.684	84.412	.32040	3.1755

#1	.00098	.04245	-.00709	.03067	.14430	-.00003	.00014	38.427	.00011
#2	.00003	.04290	.00330	.03062	.14574	-.00016	.00056	38.602	.00010

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	.00126	.00103	.06531	2.5468	.01990	9.9993	.04038	-.00037
Stddev	.00003	.00019	.00001	.00321	.0211	.00108	.0263	.00028	.00008
%RSD	30.924	15.423	.55472	4.9075	.82711	5.4047	.26297	.70455	21.423

#1	.00011	.00112	.00103	.06758	2.5319	.02066	9.9807	.04058	-.00043
#2	.00007	.00139	.00103	.06304	2.5617	.01913	10.018	.04018	-.00032

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.868	.00265	.00879	.00035	14.444	-.00034	-.00355	10.706	22.911
Stddev	.261	.00001	.00175	.00113	.108	.00160	.00396	.060	.129
%RSD	1.3856	.49287	19.854	321.45	.74578	471.32	111.56	.56226	.56226

#1	18.683	.00266	.01002	.00115	14.520	-.00147	-.00636	10.663	22.820
#2	19.053	.00264	.00756	-.00045	14.368	.00079	-.00075	10.749	23.002

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00048	.34744	-.00093	.00189	-.00247	-.00816	.00407	.00113	-.00551
Stddev	.00030	.00146	.00230	.00022	.00120	.00852	.00049	.00046	.00037
%RSD	62.604	.42060	247.52	11.731	48.629	104.42	12.132	40.716	6.7066

#1	-.00069	.34640	-.00256	.00205	-.00162	-.01419	.00372	.00146	-.00525
#2	-.00027	.34847	.00070	.00174	-.00332	-.00214	.00441	.00081	-.00577

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2832.7	46396.	5610.0
Stddev	2.4	85.	11.6
%RSD	.08383	.18329	.20698

#1	2831.0	46456.	5618.2
#2	2834.3	46336.	5601.8

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00407	51.557	.00151	.00354	.00114	.00012	.95608	.02566	-.00031	-.00050	.00078
Stddev	.00055	.205	.00141	.00024	.00017	.00007	.00919	.00565	.00001	.00037	.00029
%RSD	13.518	.39855	93.725	6.7659	14.965	52.737	.96159	22.005	2.5324	73.947	37.450

#1	.00445	51.412	.00051	.00371	.00102	.00008	.96259	.02965	-.00030	-.00024	.00099
#2	.00368	51.702	.00251	.00337	.00126	.00017	.94958	.02166	-.00032	-.00075	.00057

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00226	49.665	.43065	.00435	.06654	-.00167	-.00101	253.94	.00276	-.00230	-.00225
Stddev	.00021	.445	.00112	.00232	.00370	.00011	.00040	1.07	.00009	.00132	.00114
%RSD	9.4397	.89516	.25961	53.291	5.5670	6.5167	40.127	.42125	3.3898	57.580	50.541

#1	-.00241	49.350	.42986	.00271	.06916	-.00159	-.00130	253.18	.00282	-.00323	-.00145
#2	-.00211	49.979	.43145	.00599	.06392	-.00175	-.00072	254.70	.00269	-.00136	-.00306

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.6299	-.01285	-.00548	.00337	.00721	-.00240	.00046	5.2269	-.01259	.00426	10.381
Stddev	.0237	.00144	.00053	.01765	.03778	.00026	.00005	.0005	.00019	.00119	.097
%RSD	.51275	11.230	9.6118	524.11	524.11	10.999	10.896	.00952	1.4959	27.954	.93544

#1	4.6466	-.01387	-.00511	.01585	.03392	-.00221	.00042	5.2265	-.01272	.00342	10.313
#2	4.6131	-.01183	-.00585	-.00911	-.01950	-.00258	.00049	5.2272	-.01245	.00511	10.450

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	5.0000										
Range	-5.0000%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00220	-.00155	-.15362
Stddev	.00005	.00003	.00181
%RSD	2.4873	1.8520	1.1800

#1	.00216	-.00157	-.15490
#2	.00224	-.00153	-.15234

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2834.5	45839.	5572.5
Stddev	4.9	150.	61.1
%RSD	.17264	.32690	1.0959

#1	2831.0	45945.	5615.6
#2	2837.9	45733.	5529.3

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51966	F .56388	.99727	.49211	.49353	.49363	.00221	5.0705	.50257	.52644	F .43766	.48806
Stddev	.00366	.00093	.00038	.00051	.00447	.00551	.00025	.0314	.00108	.00019	.00024	.00080
%RSD	.70377	.16545	.03833	.10345	.90518	1.1159	11.440	.61853	.21473	.03523	.05444	.16295

#1	.51707	.56454	.99754	.49175	.49037	.48973	.00239	5.0483	.50333	.52631	.43749	.48749
#2	.52225	.56322	.99700	.49247	.49669	.49752	.00203	5.0927	.50180	.52657	.43783	.48862

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value		.50000									.50000	
Range		10.490%									-10.490%	

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.4967	51.750	1.0223	20.755	.54650	.50788	5.4818	.52770	1.0061	.99032	.00209	.94460
Stddev	.0225	.418	.0111	.012	.00179	.00328	.0414	.00067	.0001	.00291	.00554	.00283
%RSD	.90209	.80701	1.0863	.05890	.32748	.64679	.75555	.12613	.00815	.29360	264.79	.29987

#1	2.4807	51.455	1.0144	20.764	.54523	.51020	5.4526	.52817	1.0061	.99237	-.00182	.94660
#2	2.5126	52.046	1.0301	20.746	.54776	.50556	5.5111	.52723	1.0062	.98826	.00601	.94260

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.92671	5.1476	11.016	1.0103	.49609	-.00563	.53435	.98136	-.01005	.54327	F .58049	.49033
Stddev	.00391	.0156	.033	.0009	.00505	.00117	.00432	.00343	.02982	.00531	.00799	.00121
%RSD	.42143	.30199	.30199	.08505	1.0173	20.706	.80857	.34955	296.54	.97788	1.3768	.24741

#1	.92395	5.1586	11.039	1.0109	.49252	-.00646	.53130	.98379	.01103	.53952	.57484	.48947
#2	.92947	5.1366	10.992	1.0097	.49966	-.00481	.53741	.97893	-.03114	.54703	.58614	.49119

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Fail	Chk Pass				
Value											.50000	
Range											10.490%	

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2864.8	46794.	5536.4
Stddev	5.4	134.	24.6
%RSD	.18862	.28740	.44468

#1	2861.0	46889.	5553.9
#2	2868.6	46698.	5519.0

Sample Name: CCB Acquired: 6/1/2015 17:46:13 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	.00081	.00271	.00371	.00068	-.00003	.00347	.00616	-.00040	.00004	.00040
Stddev	.00006	.00034	.00025	.00070	.00063	.00004	.00064	.00272	.00037	.00014	.00003
%RSD	40.960	42.293	9.0947	18.739	93.338	107.98	18.491	44.201	92.688	319.14	7.8821

#1	.00020	.00057	.00253	.00322	.00113	-.00001	.00301	.00808	-.00066	-.00005	.00043
#2	.00011	.00105	.00288	.00420	.00023	-.00006	.00392	.00423	-.00014	.00014	.00038

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.00287	.38775	.00156	.00462	.00013	-.00041	.22468	.00041	F -.01110	-.00021
Stddev	.00014	.00365	.01168	.00015	.00040	.00004	.00035	.00068	.00002	.00532	.00026
%RSD	161.29	126.96	3.0118	9.7339	8.6989	33.936	83.904	.30243	5.7434	47.941	124.09

#1	.00018	.00545	.39601	.00167	.00433	.00010	-.00017	.22516	.00043	-.00734	-.00003
#2	-.00001	.00029	.37950	.00146	.00490	.00016	-.00066	.22420	.00040	-.01487	-.00040

Check ?	Chk Pass	Chk Fail	Chk Pass								
High Limit										.01000	
Low Limit										-.01000	

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	-.00201	F -.00562	.01401	.02999	-.00257	.00023	-.00197	-.00027	.00354	-.00800
Stddev	.00313	.00058	.00238	.02400	.05136	.00163	.00027	.00236	.00039	.00109	.03574
%RSD	5359.8	28.833	42.358	171.29	171.29	63.599	116.85	119.45	142.99	30.673	446.64

#1	-.00215	-.00160	-.00731	.03098	.06631	-.00372	.00043	-.00031	-.00055	.00431	-.03328
#2	.00227	-.00242	-.00394	-.00296	-.00633	-.00141	.00004	-.00364	.00000	.00277	.01727

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass							
High Limit			.00500								
Low Limit			-.00500								

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	-.00041	-.00093	-.00604
Stddev	.00019	.00054	.00259
%RSD	46.964	57.712	42.829

#1	-.00027	-.00055	-.00787
#2	-.00054	-.00131	-.00421

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2884.7	47097.	5591.2
Stddev	8.0	19.	34.4
%RSD	.27570	.04023	.61542

#1	2890.3	47084.	5566.9
#2	2879.0	47110.	5615.6

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01121	.11861	.01509	.10118	.01053	.00097	.10198	.21787	.00509	.01114	.00940	.01500
Stddev	.00009	.00006	.00000	.00184	.00042	.00002	.00059	.00099	.00018	.00002	.00019	.00058
%RSD	.83006	.04870	.01481	1.8189	4.0010	1.9311	.58134	.45344	3.4589	.17599	1.9774	3.8971

#1	.01128	.11857	.01509	.10248	.01023	.00096	.10156	.21718	.00521	.01113	.00927	.01541
#2	.01115	.11865	.01509	.09988	.01083	.00099	.10240	.21857	.00496	.01115	.00953	.01458

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10370	3.5096	.01228	.22490	.01186	.01962	1.2945	.04406	2.9355	F .00548	-.00365	.00786
Stddev	.00092	.0288	.00179	.00277	.00018	.00025	.0026	.00060	.0314	.00067	.00124	.00086
%RSD	.88374	.81932	14.581	1.2306	1.4815	1.2899	.20297	1.3581	1.0702	12.133	33.965	10.876

#1	.10305	3.5299	.01102	.22686	.01173	.01980	1.2926	.04448	2.9577	.00501	-.00278	.00726
#2	.10435	3.4892	.01355	.22294	.01198	.01944	1.2963	.04363	2.9132	.00596	-.00453	.00847

Check ?	Chk Pass	Chk Fail	None	Chk Pass								
Value										.00900		
Range										-30.000%		

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .00627	.52572	1.1250	.10147	.01034	.01464	.00982	F .01974	.05726	.01115	.02580	F .00770
Stddev	.00035	.00148	.0032	.00308	.00003	.00105	.00011	.00012	.04815	.00039	.00025	.00327
%RSD	5.5738	.28212	.28212	3.0317	.33240	7.1479	1.0949	.60604	84.089	3.4840	.95388	42.434

#1	.00652	.52677	1.1273	.10364	.01032	.01538	.00990	.01983	.02321	.01088	.02563	.00539
#2	.00602	.52467	1.1228	.09929	.01036	.01390	.00975	.01966	.09131	.01143	.02598	.01001

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail					
Value	.01500							.01500				.01500
Range	-30.000%							30.000%				-30.000%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2884.3	46799.	5676.3
Stddev	7.6	116.	43.9
%RSD	.26462	.24689	.77310

#1	2878.9	46881.	5707.4
#2	2889.7	46718.	5645.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00024	.00312	-.00408	.00365	.00044	-.00004	-.00076	.03732	.00002
Stddev	.00009	.00012	.00513	.00026	.00028	.00008	.00104	.00312	.00026
%RSD	38.947	3.7395	125.69	7.0378	64.347	184.29	135.86	8.3647	1449.4

#1	.00017	.00320	-.00045	.00347	.00024	.00001	-.00149	.03512	.00020
#2	.00031	.00303	-.00771	.00384	.00064	-.00009	-.00003	.03953	-.00017

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00014	-.00001	.00035	.00578	.31793	.00242	.00707	.00048	-.00054
Stddev	.00021	.00017	.00046	.00091	.01065	.00061	.01312	.00000	.00055
%RSD	152.58	2325.9	130.83	15.664	3.3499	25.214	185.51	.38280	101.92

#1	.00029	.00011	.00003	.00514	.31040	.00199	-.00220	.00048	-.00093
#2	-.00001	-.00013	.00067	.00642	.32546	.00285	.01635	.00048	-.00015

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.20732	-.00034	-.00697	-.00148	.00474	-.00266	-.00563	.01278	.02736
Stddev	.01268	.00008	.00120	.00105	.00315	.00147	.00568	.02450	.05244
%RSD	6.1148	22.537	17.235	71.312	66.540	55.306	100.94	191.67	191.67

#1	.21629	-.00029	-.00782	-.00073	.00251	-.00162	-.00161	.03011	.06444
#2	.19836	-.00040	-.00612	-.00222	.00697	-.00370	-.00964	-.00454	-.00972

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00099	.00022	.00012	-.00048	.00141	-.03123	.00021	-.00006	-.00688
Stddev	.00111	.00009	.00019	.00004	.00070	.06690	.00062	.00067	.00167
%RSD	112.82	39.891	157.92	8.7586	49.406	214.23	298.45	1096.5	24.250

#1	-.00020	.00016	.00025	-.00045	.00092	-.07853	.00064	-.00053	-.00806
#2	-.00177	.00028	-.00001	-.00051	.00190	.01608	-.00023	.00041	-.00570

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2863.2	46989.	5521.7
Stddev	1.1	86.	1.5
%RSD	.03759	.18297	.02641

#1	2864.0	47050.	5520.6
#2	2862.5	46928.	5522.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05163	2.1006	.95998	.96748	1.9461	.04846	1.8407	48.712	.09764
Stddev	.00049	.0035	.00433	.00183	.0147	.00030	.0025	.278	.00038
%RSD	.95654	.16844	.45096	.18938	.75508	.61430	.13723	.56993	.39204

#1	.05197	2.0981	.96304	.96618	1.9357	.04825	1.8425	48.515	.09791
#2	.05128	2.1031	.95691	.96878	1.9565	.04867	1.8389	48.908	.09737

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50079	F .16423	.23914	.97840	51.325	1.0077	50.093	.53073	1.0455
Stddev	.00097	.00023	.00016	.00399	.209	.0055	.141	.00093	.0026
%RSD	.19294	.14063	.06512	.40742	.40718	.54467	.28107	.17578	.24613

#1	.50147	.16439	.23925	.97558	51.177	1.0038	50.193	.53007	1.0473
#2	.50010	.16407	.23903	.98121	51.473	1.0116	49.994	.53139	1.0436

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.386	.50202	10.085	.48524	1.8406	.48162	1.8335	10.219	21.869
Stddev	.130	.00073	.008	.00049	.0065	.00094	.0013	.087	.187
%RSD	.25213	.14448	.07696	.10190	.35096	.19439	.07191	.85381	.85381

#1	51.477	.50253	10.080	.48489	1.8361	.48229	1.8345	10.157	21.737
#2	51.294	.50150	10.091	.48559	1.8452	.48096	1.8326	10.281	22.001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9946	.97551	1.0333	1.0443	1.8888	2.0465	.53248	F .55535	.45353
Stddev	.0017	.00668	.0017	.0017	.0104	.0349	.00198	.00033	.00209
%RSD	.08272	.68441	.16804	.16076	.54940	1.7056	.37148	.05863	.46011

#1	1.9958	.97079	1.0321	1.0431	1.8815	2.0711	.53108	.55558	.45205
#2	1.9935	.98023	1.0345	1.0455	1.8962	2.0218	.53387	.55511	.45500

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit								.55500	
Low Limit								.42500	

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2763.2	45487.	5449.2
Stddev	1.2	12.	26.1
%RSD	.04212	.02599	.47834

#1	2762.4	45495.	5467.6
#2	2764.0	45479.	5430.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00041	-.00033	-.00407	.11643	.05869	.00000	-.00106	330.79	-.00028
Stddev	.00012	.00100	.00134	.00145	.00030	.00003	.00090	2.68	.00007
%RSD	29.727	301.35	32.806	1.2419	.51669	3013.6	85.147	.80898	22.919

#1	.00032	.00038	-.00502	.11745	.05847	-.00002	-.00042	328.89	-.00024
#2	.00049	-.00104	-.00313	.11540	.05890	.00002	-.00169	332.68	-.00033

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00039	.00101	.00355	.03132	1.3247	.01436	70.943	.13750	-.00219
Stddev	.00018	.00002	.00043	.00112	.0026	.00069	.077	.00027	.00059
%RSD	46.476	2.2515	12.070	3.5805	.19915	4.8073	.10795	.19761	26.902

#1	-.00052	.00103	.00325	.03053	1.3228	.01387	70.998	.13731	-.00260
#2	-.00026	.00100	.00385	.03211	1.3265	.01484	70.889	.13769	-.00177

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	203.61	.00926	.04910	.00324	129.12	.00627	-.00160	7.9590	17.032
Stddev	2.44	.00012	.00306	.00141	.12	.00063	.00141	.0531	.114
%RSD	1.1973	1.2714	6.2393	43.611	.09470	10.078	87.876	.66761	.66761

#1	201.89	.00935	.05126	.00224	129.03	.00671	-.00259	7.9214	16.952
#2	205.34	.00918	.04693	.00423	129.21	.00582	-.00061	7.9966	17.113

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00208	1.4871	-.00066	-.00044	W -.01148	.01663	-.00072	.03328	-.00442
Stddev	.00138	.0181	.00100	.00019	.00045	.01634	.00060	.00012	.00107
%RSD	66.458	1.2153	151.17	42.958	3.9549	98.222	82.933	.36815	24.168

#1	-.00110	1.4743	-.00137	-.00057	-.01116	.02819	-.00030	.03336	-.00366
#2	-.00305	1.4999	.00005	-.00031	-.01180	.00508	-.00115	.03319	-.00517

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000				
Low Limit					-.01000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2624.1	43441.	5422.9
Stddev	6.0	142.	62.0
%RSD	.22988	.32688	1.1425

#1	2619.8	43541.	5466.7
#2	2628.3	43341.	5379.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00060	.00127	-.00193	.02714	.07208	-.00009	-.00121	150.92	.00087
Stddev	.00028	.00012	.00054	.00026	.00004	.00017	.00029	.06	.00001
%RSD	47.301	9.6912	28.075	.94583	.05115	188.16	24.308	.03677	1.6442

#1	.00040	.00135	-.00231	.02732	.07206	-.00021	-.00100	150.88	.00086
#2	.00080	.00118	-.00155	.02696	.07211	.00003	-.00142	150.96	.00088

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	.00073	.00159	.00294	.55172	.00779	43.781	.00499	-.00326
Stddev	.00014	.00016	.00023	.00153	.05705	.00045	.010	.00015	.00027
%RSD	96.923	21.552	14.631	52.188	10.341	5.7869	.02279	3.0001	8.2785

#1	-.00025	.00062	.00143	.00186	.59207	.00811	43.774	.00509	-.00307
#2	-.00005	.00084	.00176	.00403	.51138	.00747	43.788	.00488	-.00345

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	93.643	.00513	.01331	.00456	32.834	.00349	.00394	5.8041	12.421
Stddev	.045	.00009	.00198	.00040	.069	.00461	.00300	.0764	.164
%RSD	.04806	1.7414	14.869	8.6763	.21042	132.20	76.204	1.3164	1.3164

#1	93.675	.00506	.01471	.00484	32.883	.00023	.00606	5.7501	12.305
#2	93.611	.00519	.01191	.00428	32.785	.00675	.00181	5.8581	12.536

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00197	.83879	.00007	-.00077	-.00885	-.02265	.00005	.04040	-.00654
Stddev	.00015	.00066	.00086	.00029	.00149	.01554	.00076	.00201	.00113
%RSD	7.6656	.07850	1275.1	37.135	16.836	68.620	1639.5	4.9880	17.259

#1	-.00187	.83833	.00067	-.00097	-.00990	-.03364	-.00049	.04182	-.00734
#2	-.00208	.83926	-.00054	-.00057	-.00780	-.01166	.00058	.03897	-.00574

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2734.3	45047.	5552.5
Stddev	4.5	54.	38.8
%RSD	.16637	.11966	.69951

#1	2731.1	45009.	5525.1
#2	2737.5	45085.	5580.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00095	.00246	-.00183	.04997	.02690	-.00008	-.00010	190.77	.00204
Stddev	.00021	.00072	.00439	.00070	.00003	.00011	.00054	.18	.00011
%RSD	22.367	29.176	240.16	1.3910	.11432	138.60	520.14	.09358	5.4800

#1	.00080	.00195	-.00493	.04948	.02692	-.00016	-.00048	190.65	.00196
#2	.00110	.00296	.00128	.05046	.02687	.00000	.00028	190.90	.00212

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00031	.00110	.00356	.01247	2.9012	.03474	84.775	.01824	-.00262
Stddev	.00001	.00011	.00027	.00220	.0633	.00065	.034	.00000	.00026
%RSD	3.1866	9.6472	7.4798	17.653	2.1818	1.8833	.03962	.02147	10.029

#1	-.00030	.00103	.00374	.01091	2.8565	.03521	84.751	.01824	-.00281
#2	-.00032	.00118	.00337	.01403	2.9460	.03428	84.798	.01825	-.00244

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	149.92	.00767	.00100	.00537	146.27	.00408	-.00332	10.205	21.838
Stddev	.11	.00030	.00016	.00206	.31	.00246	.00531	.020	.042
%RSD	.07447	3.9270	15.813	38.380	.21212	60.373	159.99	.19414	.19414

#1	150.00	.00788	.00089	.00391	146.49	.00234	-.00708	10.191	21.808
#2	149.84	.00746	.00112	.00683	146.05	.00583	.00044	10.219	21.868

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00172	1.6535	.00019	-.00063	-.00896	-.02029	-.00086	.02852	-.00492
Stddev	.00005	.0015	.00294	.00015	.00045	.02986	.00096	.00061	.00267
%RSD	3.1455	.09257	1550.9	24.287	5.0149	147.16	111.27	2.1415	54.204

#1	-.00175	1.6524	.00227	-.00052	-.00864	-.04141	-.00154	.02809	-.00304
#2	-.00168	1.6546	-.00189	-.00073	-.00927	.00082	-.00018	.02895	-.00681

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2699.3	44643.	5469.2
Stddev	5.1	86.	12.7
%RSD	.18879	.19297	.23145

#1	2695.7	44582.	5460.3
#2	2702.9	44704.	5478.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00113	.00149	W -.01016	.04540	.02526	-.00005	-.00390	196.70	.00159
Stddev	.00031	.00077	.00516	.00045	.00039	.00004	.00103	.19	.00010
%RSD	27.170	52.106	50.851	.98250	1.5446	71.785	26.356	.09901	6.3907

#1	.00134	.00094	-.01381	.04508	.02553	-.00003	-.00463	196.84	.00166
#2	.00091	.00203	-.00650	.04571	.02498	-.00008	-.00318	196.57	.00152

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			10.000						
Low Limit			-.01000						

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00026	.00082	.00269	.02952	2.7085	.03209	88.195	.02118	-.00257
Stddev	.00003	.00036	.00081	.00229	.0121	.00034	.054	.00006	.00070
%RSD	11.861	43.505	30.045	7.7745	.44548	1.0687	.06119	.30187	27.366

#1	-.00028	.00107	.00326	.03114	2.6999	.03185	88.233	.02122	-.00306
#2	-.00024	.00057	.00212	.02789	2.7170	.03233	88.157	.02113	-.00207

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	152.56	.00787	-.00115	.00525	153.25	.00596	.00128	10.610	22.705
Stddev	.40	.00069	.00393	.00060	.27	.00090	.00045	.007	.015
%RSD	.26078	8.7293	341.21	11.345	.17666	15.129	35.169	.06425	.06425

#1	152.27	.00739	-.00393	.00567	153.06	.00660	.00097	10.615	22.715
#2	152.84	.00836	.00163	.00483	153.45	.00532	.00160	10.605	22.695

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00030	1.6912	-.00170	-.00055	W -.01016	.00806	-.00112	.02607	-.00615
Stddev	.00267	.0000	.00107	.00009	.00218	.00507	.00011	.00012	.00012
%RSD	882.45	.00073	63.335	17.266	21.493	62.889	9.4319	.44185	2.0257

#1	-.00159	1.6912	-.00094	-.00061	-.00862	.00447	-.00104	.02599	-.00606
#2	.00219	1.6912	-.00246	-.00048	-.01170	.01164	-.00119	.02615	-.00624

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000				
Low Limit					-.01000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2691.0	44941.	5528.9
Stddev	.2	8.	11.1
%RSD	.00889	.01782	.20073

#1	2691.2	44947.	5521.0
#2	2690.8	44936.	5536.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00056	.39488	-.00083	.00681	.39847	-.00004	.00499	140.38	-.00033
Stddev	.00039	.00065	.00033	.00021	.00487	.00003	.00349	1.59	.00003
%RSD	69.878	.16527	39.116	3.0882	1.2215	80.725	69.915	1.1298	7.6793

#1	.00084	.39534	-.00060	.00696	.39503	-.00002	.00746	139.26	-.00035
#2	.00028	.39441	-.00106	.00666	.40191	-.00006	.00252	141.50	-.00032

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00126	.00048	.00514	.09454	5.3849	.11030	.03529	.00043	-.00261
Stddev	.00030	.00030	.00012	.00287	.0691	.00235	.00241	.00001	.00031
%RSD	24.148	62.396	2.2678	3.0354	1.2832	2.1271	6.8211	3.0161	11.902

#1	.00148	.00070	.00522	.09251	5.3360	.10864	.03359	.00042	-.00283
#2	.00105	.00027	.00506	.09657	5.4337	.11196	.03699	.00044	-.00239

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	89.081	.00986	-.00358	.00449	3.3073	.00290	-.00280	4.3700	9.3517
Stddev	.875	.00063	.00029	.00289	.0069	.00335	.00132	.0426	.0911
%RSD	.98259	6.3743	8.1367	64.474	.20811	115.36	47.240	.97416	.97416

#1	88.462	.00942	-.00337	.00244	3.3025	.00527	-.00374	4.3399	9.2873
#2	89.700	.01031	-.00378	.00653	3.3122	.00053	-.00187	4.4001	9.4162

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00081	W 6.0328	.00015	-.00133	-.00798	-.00947	.00218	.00036	-.00699
Stddev	.00261	.0829	.00170	.00015	.00360	.00272	.00036	.00004	.00128
%RSD	321.38	1.3741	1157.3	10.961	45.093	28.715	16.577	11.520	18.358

#1	.00103	5.9742	-.00106	-.00143	-.00544	-.00755	.00244	.00033	-.00789
#2	-.00266	6.0915	.00135	-.00122	-.01052	-.01140	.00193	.00039	-.00608

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		5.0000							
Low Limit		-.01000							

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2766.5	45736.	5526.1
Stddev	3.6	25.	58.5
%RSD	.12836	.05536	1.0585

#1	2769.0	45718.	5567.5
#2	2764.0	45754.	5484.7

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00426	51.107	.00338	.00033	.00074	.00008	.97391	.03689	-.00038	-.00039	.00078
Stddev	.00015	.025	.00238	.00026	.00024	.00005	.00359	.00349	.00022	.00011	.00024
%RSD	3.4429	.04846	70.207	78.888	32.541	62.684	.36854	9.4605	57.607	28.940	30.411

#1	.00416	51.090	.00170	.00014	.00091	.00011	.97137	.03442	-.00054	-.00031	.00061
#2	.00437	51.125	.00506	.00051	.00057	.00004	.97645	.03936	-.00023	-.00047	.00094

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00165	49.368	.33614	.00479	.05563	-.00159	-.00086	251.35	.00263	-.00570	-.00200
Stddev	.00032	.026	.05655	.00291	.00024	.00007	.00019	.86	.00029	.00046	.00051
%RSD	19.332	.05168	16.825	60.646	.43442	4.5613	22.109	.34118	11.138	8.1226	25.759

#1	-.00142	49.350	.29615	.00685	.05580	-.00154	-.00073	250.74	.00283	-.00602	-.00163
#2	-.00187	49.386	.37613	.00274	.05546	-.00164	-.00100	251.96	.00242	-.00537	-.00236

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.7038	-.00931	.00214	.00022	.00046	-.00220	.00063	5.2114	-.01267	.00115	W 10.597
Stddev	.0442	.00144	.00119	.01631	.03490	.00072	.00001	.0018	.00026	.00236	.193
%RSD	.93985	15.492	55.786	7557.8	7557.8	32.753	1.3753	.03392	2.0892	204.41	1.8231

#1	4.6725	-.00829	.00129	-.01132	-.02422	-.00271	.00062	5.2126	-.01285	-.00051	10.461
#2	4.7350	-.01034	.00298	.01175	.02514	-.00169	.00063	5.2101	-.01248	.00282	10.734

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value	5.0000										10.000
Range	-5.0000%										5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00316	-.00182	-.15311
Stddev	.00049	.00080	.00183
%RSD	15.535	44.073	1.1932

#1	.00281	-.00126	-.15182
#2	.00351	-.00239	-.15440

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2832.3	46368.	5660.4
Stddev	4.5	112.	1.7
%RSD	.15729	.24224	.03012

#1	2835.5	46448.	5661.6
#2	2829.2	46289.	5659.2

Sample Name: CCV-3296664 Acquired: 6/1/2015 18:12:02 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52416	F .56805	.98372	.49526	.49127	.49090	.00109	5.0295	.50549	.52997	F .44010	.49176
Stddev	.00068	.00146	.00364	.00563	.00646	.00599	.00320	.0404	.00310	.00787	.00521	.00112
%RSD	.12943	.25750	.36994	1.1364	1.3147	1.2207	292.96	.80301	.61384	1.4846	1.1845	.22815

#1	.52464	.56909	.98629	.49924	.48670	.48666	-.00117	5.0010	.50768	.53553	.44379	.49256
#2	.52368	.56702	.98115	.49128	.49583	.49514	.00335	5.0581	.50330	.52440	.43641	.49097

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value		.50000									.50000	
Range		10.490%									-10.490%	

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.4859	51.621	1.0201	20.769	.54802	.51163	5.4203	.53071	1.0190	.99909	-0.00965	.95704
Stddev	.0066	.570	.0064	.026	.00021	.00773	.0143	.00618	.0150	.01601	.00230	.02136
%RSD	.26472	1.1036	.63016	.12412	.03783	1.5101	.26426	1.1640	1.4681	1.6023	23.793	2.2315

#1	2.4812	51.218	1.0156	20.751	.54817	.51709	5.4102	.53508	1.0295	1.0104	-.01127	.97214
#2	2.4905	52.023	1.0247	20.788	.54788	.50617	5.4304	.52634	1.0084	.98778	-.00802	.94194

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.94264	5.1001	10.914	1.0236	.49441	-.00453	.53548	.99404	-.04276	.54942	F .58327	.48900
Stddev	.02369	.0519	.111	.0102	.00644	.00146	.00002	.01793	.00269	.00111	.00659	.00267
%RSD	2.5132	1.0180	1.0180	.99942	1.3020	32.137	.00405	1.8035	6.2911	.20202	1.1295	.54580

#1	.95939	5.0634	10.836	1.0308	.48986	-.00350	.53546	1.0067	-.04086	.54864	.58793	.48711
#2	.92589	5.1368	10.993	1.0164	.49896	-.00556	.53549	.98136	-.04467	.55021	.57862	.49088

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Fail	Chk Pass				
Value											.50000	
Range											10.490%	

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2860.2	46555.	5578.4
Stddev	9.3	101.	41.2
%RSD	.32437	.21594	.73825

#1	2853.6	46484.	5607.5
#2	2866.7	46626.	5549.3

Sample Name: CCB Acquired: 6/1/2015 18:14:32 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	-.00049	.00250	.00092	.00021	.00002	.00046	.01982	-.00036	.00014	.00028
Stddev	.00007	.00042	.00351	.00019	.00005	.00003	.00046	.00592	.00002	.00005	.00011
%RSD	89.198	84.923	140.45	21.069	21.987	178.78	100.32	29.839	5.2935	37.593	37.335

#1	.00003	-.00020	.00002	.00079	.00018	.00000	.00078	.02401	-.00034	.00017	.00036
#2	.00013	-.00079	.00498	.00106	.00024	.00003	.00013	.01564	-.00037	.00010	.00021

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00007	.00394	.28755	.00259	.00403	.00022	-.00020	.14865	.00045	F -.01201	-.00123
Stddev	.00019	.00277	.05720	.00170	.00306	.00000	.00027	.00115	.00031	.00097	.00244
%RSD	266.41	70.242	19.893	65.642	76.018	2.2476	137.16	.77103	68.988	8.1064	198.78

#1	-.00006	.00590	.32800	.00380	.00619	.00022	-.00039	.14784	.00067	-.01270	-.00295
#2	.00020	.00198	.24710	.00139	.00186	.00022	-.00001	.14946	.00023	-.01132	.00050

Check ?	Chk Pass	Chk Fail	Chk Pass								
High Limit										.01000	
Low Limit										-.01000	

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01211	-.00263	-.00372	.01993	.04266	-.00185	.00017	-.00014	-.00031	.00385	-.00569
Stddev	.00320	.00152	.00099	.00619	.01325	.00146	.00011	.00140	.00018	.00355	.04842
%RSD	26.458	57.787	26.759	31.049	31.049	78.925	66.791	1030.9	56.333	92.117	850.45

#1	-.00985	-.00155	-.00442	.01556	.03329	-.00289	.00025	.00085	-.00019	.00134	.02854
#2	-.01438	-.00370	-.00301	.02431	.05203	-.00082	.00009	-.00112	-.00044	.00636	-.03993

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	-.00006	.00087	-.00509
Stddev	.00027	.00057	.00260
%RSD	477.97	65.964	51.101

#1	.00014	.00127	-.00325
#2	-.00025	.00046	-.00692

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2866.3	46819.	5568.4
Stddev	7.4	106.	3.3
%RSD	.25788	.22594	.05928

#1	2861.1	46745.	5570.7
#2	2871.5	46894.	5566.1

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01094	.11667	.01445	.10050	.01045	.00099	.10274	.21520	.00503	.01091	.00919	.01518
Stddev	.00081	.00033	.00351	.00079	.00019	.00007	.00508	.00109	.00015	.00019	.00035	.00023
%RSD	7.4060	.28274	24.303	.78253	1.8244	7.2933	4.9420	.50459	2.9446	1.7451	3.7703	1.5009

#1	.01037	.11690	.01693	.09994	.01059	.00105	.09915	.21597	.00492	.01078	.00943	.01535
#2	.01152	.11644	.01196	.10105	.01032	.00094	.10633	.21443	.00513	.01105	.00894	.01502

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10085	3.5179	F .01365	.22816	.01180	.02018	1.2237	.04399	2.9480	.00809	-0.00716	.00714
Stddev	.00436	.0377	.00112	.00037	.00020	.00052	.0103	.00020	.0155	.00167	.00205	.00336
%RSD	4.3191	1.0722	8.2214	.16090	1.6604	2.5840	.83890	.45706	.52670	20.646	28.555	47.007

#1	.09777	3.4913	.01444	.22842	.01166	.02054	1.2310	.04385	2.9370	.00691	-.00861	.00477
#2	.10393	3.5446	.01285	.22790	.01194	.01981	1.2164	.04413	2.9590	.00927	-.00572	.00952

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .00927	.53415	1.1431	.10090	.01030	.01455	.00993	.01871	.05265	.01068	F .02609	F .00810
Stddev	.00097	.03060	.0655	.00028	.00007	.00322	.00048	.00332	.07304	.00076	.00043	.00115
%RSD	10.418	5.7291	5.7291	.28187	.67074	22.153	4.8698	17.768	138.74	7.0742	1.6412	14.197

#1	.00995	.51251	1.0968	.10110	.01035	.01227	.00958	.01636	.10430	.01122	.02640	.00892
#2	.00858	.55579	1.1894	.10070	.01025	.01683	.01027	.02106	.00100	.01015	.02579	.00729

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Fail								
Value	.01500										.02000	.01500
Range	-30.000%										30.000%	-30.000%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2888.1	46943.	5595.7
Stddev	6.3	16.	45.8
%RSD	.21833	.03493	.81820

#1	2892.5	46955.	5563.3
#2	2883.6	46931.	5628.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00079	.00125	.00093	.05991	.03760	-.00013	-.00105	43.117	-.00018
Stddev	.00046	.00061	.00323	.00027	.00064	.00011	.00170	.706	.00018
%RSD	58.031	48.669	346.64	.45605	1.7111	86.512	162.31	1.6385	102.18

#1	.00112	.00082	.00321	.05972	.03714	-.00021	-.00225	42.617	-.00030
#2	.00047	.00168	-.00135	.06010	.03805	-.00005	.00015	43.616	-.00005

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	.00058	.00134	.01991	5.7073	.01482	8.4262	.02075	-.00203
Stddev	.00002	.00016	.00044	.00137	.0708	.00065	.0056	.00003	.00015
%RSD	17.387	27.993	33.084	6.8865	1.2397	4.3918	.06690	.14564	7.4646

#1	.00011	.00069	.00166	.02088	5.6573	.01528	8.4302	.02077	-.00192
#2	.00008	.00046	.00103	.01894	5.7573	.01436	8.4222	.02073	-.00214

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.830	.00329	-.00495	.00162	8.6757	-.00078	-.00386	2.4452	5.2326
Stddev	.130	.00016	.00100	.00076	.0302	.00083	.00279	.0235	.0503
%RSD	.52542	4.8630	20.128	46.869	.34833	106.03	72.442	.96091	.96091

#1	24.738	.00340	-.00565	.00215	8.6971	-.00019	-.00583	2.4285	5.1971
#2	24.922	.00317	-.00424	.00108	8.6544	-.00136	-.00188	2.4618	5.2682

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00063	.34414	.00139	-.00090	-.00167	W -.06311	-.00025	-.00053	-.00610
Stddev	.00038	.00516	.00278	.00011	.00036	.04404	.00115	.00010	.00130
%RSD	59.640	1.4999	200.93	12.636	21.375	69.786	470.32	18.355	21.262

#1	-.00090	.34049	.00335	-.00082	-.00192	-.09426	.00057	-.00059	-.00701
#2	-.00037	.34779	-.00058	-.00098	-.00142	-.03197	-.00106	-.00046	-.00518

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2811.4	46291.	5552.3
Stddev	.9	41.	87.3
%RSD	.03362	.08796	1.5721

#1	2810.8	46262.	5614.0
#2	2812.1	46320.	5490.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00062	.00024	-.00139	.01138	.00678	.00002	.00024	7.8300	-.00030
Stddev	.00024	.00003	.00658	.00121	.00004	.00010	.00033	.0258	.00023
%RSD	39.354	13.809	472.74	10.600	.61494	413.45	140.20	.32994	75.052

#1	.00079	.00027	-.00605	.01223	.00681	.00009	.00000	7.8118	-.00014
#2	.00045	.00022	.00326	.01053	.00675	-.00005	.00047	7.8483	-.00046

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00020	.00047	.00049	.00648	1.2711	.00397	1.5860	.00395	-.00058
Stddev	.00010	.00033	.00027	.00280	.0127	.00060	.0078	.00006	.00042
%RSD	49.128	70.451	54.436	43.274	.99720	15.146	.49153	1.5974	71.991

#1	.00027	.00023	.00068	.00846	1.2622	.00354	1.5805	.00390	-.00088
#2	.00013	.00070	.00030	.00450	1.2801	.00439	1.5915	.00399	-.00029

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.6087	.00178	-.00670	-.00187	1.6821	-.00172	W -.00561	.43576	.93253
Stddev	.0025	.00016	.00024	.00090	.0324	.00313	.00171	.03436	.07352
%RSD	.05380	8.7855	3.6166	48.058	1.9252	181.65	30.412	7.8842	7.8842

#1	4.6104	.00189	-.00687	-.00124	1.6592	-.00393	-.00440	.41147	.88054
#2	4.6069	.00167	-.00653	-.00251	1.7050	.00049	-.00681	.46005	.98452

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							5.0000		
Low Limit							-.00500		

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00490	.06310	.00218	-.00089	.00173	.01135	-.00038	.00000	-.00623
Stddev	.00085	.00075	.00321	.00069	.00113	.00584	.00046	.00013	.00111
%RSD	17.419	1.1842	147.12	76.811	65.479	51.430	120.66	3574.4	17.833

#1	.00551	.06257	.00444	-.00041	.00254	.01548	-.00006	.00009	-.00544
#2	.00430	.06363	-.00009	-.00138	.00093	.00722	-.00071	-.00009	-.00701

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2845.0	46568.	5569.0
Stddev	10.3	228.	21.8
%RSD	.36071	.48975	.39069

#1	2852.3	46729.	5553.6
#2	2837.7	46406.	5584.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05066	2.0869	.97399	1.0209	1.9905	.04877	F 1.8452	91.760	.09771
Stddev	.00004	.0064	.00035	.0010	.0483	.00121	.0141	2.099	.00039
%RSD	.08481	.30651	.03553	.09566	2.4245	2.4887	.76389	2.2870	.40230

#1	.05069	2.0914	.97424	1.0216	1.9564	.04791	1.8551	90.276	.09799
#2	.05063	2.0824	.97375	1.0202	2.0246	.04963	1.8352	93.244	.09743

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50171	W .16336	.24267	.99543	57.055	1.0285	58.470	.55217	1.0492
Stddev	.00126	.00045	.00089	.02930	1.573	.0265	.155	.00038	.0039
%RSD	.25119	.27551	.36752	2.9440	2.7567	2.5716	.26558	.06879	.37585

#1	.50260	.16368	.24330	.97471	55.942	1.0098	58.580	.55244	1.0520
#2	.50082	.16305	.24204	1.0161	58.167	1.0472	58.360	.55190	1.0464

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	79.285	.50278	W 10.194	.48237	10.822	.48344	1.8638	12.869	27.540
Stddev	2.148	.00099	.035	.00158	.036	.00531	.0060	.395	.844
%RSD	2.7097	.19608	.34185	.32837	.33607	1.0983	.32224	3.0654	3.0654

#1	77.765	.50347	10.219	.48125	10.848	.48719	1.8595	12.590	26.943
#2	80.804	.50208	10.169	.48349	10.796	.47968	1.8680	13.148	28.137

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2.0125	1.3286	1.0376	1.0472	1.8877	2.0373	.53767	.55110	.47083
Stddev	.0038	.0317	.0055	.0006	.0139	.0651	.00012	.00027	.01463
%RSD	.19078	2.3881	.52680	.06012	.73835	3.1937	.02268	.04870	3.1076

#1	2.0152	1.3061	1.0415	1.0477	1.8778	2.0833	.53775	.55091	.46048
#2	2.0098	1.3510	1.0338	1.0468	1.8975	1.9913	.53758	.55129	.48117

Check ?	Chk Warn	Chk Pass							
High Limit	2.0000								
Low Limit	-.05000								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2731.2	44915.	5499.3
Stddev	1.0	161.	104.4
%RSD	.03799	.35796	1.8988

#1	2730.5	44801.	5573.2
#2	2731.9	45028.	5425.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05213	2.1025	.97414	1.0266	1.9737	.04797	F 1.8641	90.989	.09914
Stddev	.00035	.0060	.00694	.0008	.0075	.00003	.0019	.308	.00007
%RSD	.67079	.28719	.71206	.08021	.37946	.07166	.10255	.33821	.07164

#1	.05238	2.1068	.96923	1.0272	1.9684	.04799	1.8655	90.772	.09919
#2	.05188	2.0982	.97904	1.0260	1.9790	.04794	1.8628	91.207	.09909

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50662	W .16518	.24516	.98278	56.670	1.0223	58.776	.55592	1.0576
Stddev	.00022	.00009	.00067	.00211	.131	.0072	.139	.00006	.0005
%RSD	.04409	.05590	.27132	.21445	.23179	.70040	.23699	.01119	.04930

#1	.50646	.16525	.24563	.98427	56.577	1.0172	58.874	.55596	1.0580
#2	.50678	.16511	.24469	.98129	56.763	1.0273	58.677	.55588	1.0572

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	78.534	.50731	W 10.281	.48883	10.918	.48327	1.8697	12.709	27.196
Stddev	.095	.00005	.034	.00303	.032	.00750	.0166	.064	.138
%RSD	.12083	.00916	.33324	.62031	.29635	1.5512	.88995	.50566	.50566

#1	78.467	.50735	10.306	.49097	10.941	.48857	1.8814	12.663	27.099
#2	78.602	.50728	10.257	.48668	10.896	.47797	1.8579	12.754	27.294

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2.0167	1.3178	1.0469	1.0525	1.8992	2.0896	.54054	.55296	.46013
Stddev	.0394	.0045	.0040	.0010	.0334	.0674	.00031	.00002	.00233
%RSD	1.9551	.33973	.37806	.09182	1.7608	3.2250	.05769	.00427	.50557

#1	2.0446	1.3146	1.0497	1.0518	1.9229	2.0420	.54032	.55295	.45849
#2	1.9888	1.3209	1.0441	1.0531	1.8756	2.1373	.54076	.55298	.46178

Check ?	Chk Warn	Chk Pass							
High Limit	2.0000								
Low Limit	-.05000								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2739.2	45189.	5586.3
Stddev	1.1	133.	3.9
%RSD	.04155	.29443	.06900

#1	2738.4	45283.	5583.6
#2	2740.0	45095.	5589.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00117	.00120	-.00630	.02606	.06733	-.00015	.00113	257.11	-.00026
Stddev	.00067	.00008	.00007	.00171	.00113	.00010	.00181	3.08	.00012
%RSD	57.370	6.7515	1.0767	6.5751	1.6750	66.811	160.53	1.1961	44.422

#1	.00165	.00126	-.00635	.02485	.06653	-.00008	.00241	254.94	-.00034
#2	.00070	.00115	-.00625	.02727	.06812	-.00022	-.00015	259.29	-.00018

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	.00080	.00179	.00941	.74533	.00947	30.891	.46726	-.00276
Stddev	.00028	.00007	.00065	.00046	.02025	.00006	.103	.00044	.00030
%RSD	279.02	8.9404	36.423	4.8820	2.7169	.68191	.33339	.09448	10.938

#1	.00010	.00085	.00133	.00909	.73101	.00942	30.964	.46694	-.00254
#2	-.00029	.00075	.00225	.00974	.75965	.00952	30.818	.46757	-.00297

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	129.17	.01159	.00101	.00414	75.989	.00501	.00085	5.6838	12.163
Stddev	2.50	.00011	.00478	.00062	.041	.00236	.00366	.0225	.048
%RSD	1.9332	.92412	471.39	14.896	.05358	47.034	433.49	.39564	.39564

#1	127.40	.01166	-.00237	.00370	76.018	.00334	-.00175	5.6679	12.129
#2	130.93	.01151	.00439	.00457	75.960	.00667	.00344	5.6997	12.197

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00055	1.2996	-.00062	-.00150	-.00892	.01686	-.00075	.03686	-.00696
Stddev	.00117	.0172	.00006	.00001	.00071	.03785	.00094	.00088	.00075
%RSD	211.40	1.3217	9.6768	.91082	8.0014	224.44	126.06	2.3834	10.750

#1	.00027	1.2875	-.00066	-.00151	-.00841	-.00990	-.00008	.03748	-.00643
#2	-.00138	1.3117	-.00058	-.00149	-.00942	.04363	-.00142	.03624	-.00749

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2694.0	44547.	5469.7
Stddev	9.2	54.	51.6
%RSD	.34180	.12074	.94320

#1	2687.5	44585.	5506.1
#2	2700.5	44509.	5433.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00093	.00376	.00049	1.6116	.09363	-.00007	.00255	44.088	.00010
Stddev	.00001	.00039	.00425	.0025	.00027	.00003	.00139	.310	.00009
%RSD	1.1676	10.438	871.58	.15288	.28928	40.607	54.423	.70370	85.950

#1	.00093	.00348	-.00252	1.6134	.09344	-.00009	.00157	44.308	.00016
#2	.00094	.00403	.00349	1.6099	.09382	-.00005	.00352	43.869	.00004

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	.00047	.00167	.00072	2.3277	.01999	28.236	.00075	.00063
Stddev	.00018	.00001	.00019	.00303	.0649	.00298	.038	.00017	.00021
%RSD	133.04	3.1578	11.421	419.85	2.7898	14.892	.13475	22.618	33.247

#1	-.00001	.00048	.00180	.00286	2.2818	.01788	28.263	.00086	.00078
#2	-.00027	.00046	.00153	-.00142	2.3736	.02209	28.209	.00063	.00048

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	86.361	.00333	-.00555	.00254	10.080	-.00188	W -.00665	6.7324	14.407
Stddev	.454	.00078	.00289	.00015	.057	.00051	.00059	.0062	.013
%RSD	.52515	23.471	52.114	5.8396	.56551	27.173	8.9111	.09216	.09216

#1	86.681	.00278	-.00759	.00265	10.040	-.00224	-.00623	6.7368	14.417
#2	86.040	.00388	-.00350	.00244	10.121	-.00152	-.00707	6.7280	14.398

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							5.0000		
Low Limit							-.00500		

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00074	2.2685	-.00123	-.00087	-.00157	-.03607	-.00080	.01440	-.00457
Stddev	.00141	.0168	.00413	.00052	.00014	.02435	.00049	.00005	.00091
%RSD	191.20	.74229	336.12	59.500	8.6886	67.515	60.646	.31401	19.861

#1	.00026	2.2804	.00169	-.00050	-.00147	-.05329	-.00114	.01443	-.00522
#2	-.00174	2.2566	-.00415	-.00124	-.00166	-.01885	-.00046	.01437	-.00393

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2787.8	45987.	5581.3
Stddev	7.7	109.	38.6
%RSD	.27529	.23656	.69079

#1	2782.4	46064.	5554.0
#2	2793.2	45910.	5608.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00042	.00199	-.00390	.04744	.08163	-.00014	.00038	130.43	.00249
Stddev	.00029	.00126	.00271	.00067	.00057	.00006	.00219	1.77	.00047
%RSD	67.971	63.574	69.548	1.4158	.70105	46.437	579.77	1.3548	18.750

#1	.00022	.00288	-.00582	.04696	.08203	-.00018	.00193	131.68	.00282
#2	.00063	.00109	-.00198	.04791	.08122	-.00009	-.00117	129.18	.00216

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00022	.00066	.00189	.00563	1.4532	.00741	42.040	.00163	-.00208
Stddev	.00013	.00031	.00020	.00263	.0137	.00201	.130	.00004	.00038
%RSD	58.551	46.983	10.569	46.665	.93989	27.110	.31037	2.2716	18.379

#1	-.00013	.00088	.00175	.00748	1.4629	.00884	41.948	.00160	-.00181
#2	-.00030	.00044	.00203	.00377	1.4436	.00599	42.133	.00166	-.00236

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	130.67	.00489	-.00545	.00360	39.280	.00112	-.00231	6.6189	14.164
Stddev	3.73	.00017	.00130	.00110	.064	.00389	.00530	.0060	.013
%RSD	2.8555	3.4024	23.936	30.409	.16368	346.35	229.68	.09111	.09111

#1	133.31	.00478	-.00453	.00438	39.326	.00387	-.00606	6.6146	14.155
#2	128.03	.00501	-.00637	.00283	39.235	-.00163	.00144	6.6231	14.174

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00142	1.1364	.00007	-.00050	-.00638	-.03068	-.00074	.11578	-.00517
Stddev	.00068	.0146	.00190	.00016	.00161	.01692	.00009	.00223	.00062
%RSD	47.803	1.2885	2665.3	31.253	25.257	55.161	12.111	1.9273	12.034

#1	-.00190	1.1468	-.00127	-.00061	-.00752	-.01871	-.00067	.11736	-.00473
#2	-.00094	1.1260	.00141	-.00039	-.00524	-.04265	-.00080	.11420	-.00561

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2729.3	45204.	5627.6
Stddev	1.2	15.	88.4
%RSD	.04341	.03225	1.5711

#1	2728.5	45214.	5565.1
#2	2730.1	45194.	5690.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05199	2.0944	.98250	1.0349	1.9609	.04811	F 1.8676	90.214	.09928
Stddev	.00070	.0018	.00579	.0049	.0193	.00001	.0110	.773	.00035
%RSD	1.3440	.08748	.58952	.47333	.98179	.02328	.59044	.85650	.35008

#1	.05249	2.0931	.97841	1.0384	1.9473	.04810	1.8754	89.667	.09953
#2	.05150	2.0957	.98660	1.0315	1.9745	.04812	1.8598	90.760	.09904

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50374	W .16455	.24395	.97933	56.370	1.0161	58.524	.55463	1.0582
Stddev	.00001	.00010	.00198	.00529	.542	.0149	.280	.00046	.0024
%RSD	.00296	.05934	.81203	.53977	.96157	1.4707	.47864	.08316	.22747

#1	.50373	.16462	.24535	.98307	55.986	1.0055	58.722	.55496	1.0599
#2	.50375	.16448	.24255	.97559	56.753	1.0266	58.326	.55431	1.0565

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	78.099	.50414	W 10.285	.48478	10.898	.48792	1.8709	12.599	26.962
Stddev	.076	.00144	.047	.00225	.059	.00271	.0145	.066	.142
%RSD	.09764	.28547	.45500	.46400	.54511	.55618	.77733	.52653	.52653

#1	78.045	.50516	10.318	.48637	10.940	.48984	1.8812	12.552	26.861
#2	78.153	.50312	10.252	.48319	10.856	.48601	1.8606	12.646	27.062

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2.0009	1.3109	1.0480	1.0550	1.8898	2.1072	.54282	.55234	.45727
Stddev	.0100	.0120	.0031	.0015	.0094	.0323	.00000	.00190	.00155
%RSD	.50135	.91458	.29603	.14429	.49522	1.5313	.00047	.34397	.33988

#1	1.9938	1.3024	1.0458	1.0561	1.8964	2.1300	.54282	.55369	.45837
#2	2.0080	1.3194	1.0501	1.0539	1.8832	2.0844	.54282	.55100	.45617

Check ?	Chk Warn	Chk Pass							
High Limit	2.0000								
Low Limit	-.05000								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2748.6	45278.	5637.9
Stddev	3.1	20.	44.3
%RSD	.11395	.04427	.78578

#1	2750.8	45264.	5669.2
#2	2746.4	45292.	5606.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05162	2.1078	.98525	1.0396	2.0155	.04909	F 1.8718	92.711	.09977
Stddev	.00105	.0009	.00042	.0023	.0119	.00070	.0034	.709	.00014
%RSD	2.0283	.04309	.04294	.22486	.59184	1.4349	.17968	.76472	.13861

#1	.05088	2.1084	.98495	1.0413	2.0240	.04959	1.8694	93.212	.09968
#2	.05236	2.1071	.98555	1.0380	2.0071	.04860	1.8742	92.209	.09987

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50810	W .16596	.24647	1.0023	57.873	1.0448	58.707	.55859	1.0621
Stddev	.00142	.00030	.00098	.0009	.690	.0086	.159	.00015	.0003
%RSD	.27953	.18100	.39798	.08967	1.1927	.81900	.27049	.02755	.02841

#1	.50910	.16618	.24577	1.0017	58.361	1.0508	58.595	.55848	1.0623
#2	.50709	.16575	.24716	1.0030	57.385	1.0387	58.819	.55870	1.0619

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	79.013	.50901	W 10.373	.49056	10.979	.48669	1.8841	12.734	27.250
Stddev	.062	.00167	.001	.00075	.022	.00115	.0036	.073	.156
%RSD	.07907	.32783	.00627	.15286	.20417	.23580	.19076	.57210	.57210

#1	79.057	.51019	10.373	.49003	10.995	.48750	1.8866	12.682	27.140
#2	78.969	.50783	10.374	.49109	10.964	.48588	1.8815	12.785	27.361

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2.0276	1.3459	1.0521	1.0584	1.9001	2.0832	.54464	.55458	.46073
Stddev	.0025	.0081	.0006	.0008	.0066	.0281	.00061	.00280	.00280
%RSD	.12288	.60084	.05266	.07912	.34739	1.3479	.11226	.50533	.60873

#1	2.0294	1.3516	1.0517	1.0590	1.9048	2.1031	.54508	.55656	.46271
#2	2.0259	1.3402	1.0525	1.0579	1.8954	2.0634	.54421	.55260	.45874

Check ?	Chk Warn	Chk Pass							
High Limit	2.0000								
Low Limit	-.05000								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2743.0	45278.	5527.5
Stddev	6.3	53.	68.5
%RSD	.23132	.11680	1.2397

#1	2747.5	45241.	5479.0
#2	2738.5	45315.	5575.9

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00385	51.560	-.00210	.00339	.00110	.00007	.97488	.03627	-.00053	.00002	.00047
Stddev	.00014	.178	.00390	.00040	.00035	.00018	.00152	.00293	.00024	.00037	.00017
%RSD	3.5092	.34520	185.88	11.950	32.136	253.52	.15594	8.0839	45.817	2172.0	36.389

#1	.00376	51.686	.00066	.00310	.00085	.00020	.97380	.03420	-.00070	-.00025	.00060
#2	.00395	51.434	-.00486	.00367	.00135	-.00006	.97595	.03835	-.00036	.00028	.00035

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00232	49.323	.39842	.00309	.06273	-.00164	-.00087	254.04	.00268	-.00072	-.00010
Stddev	.00006	.408	.03602	.00139	.00107	.00009	.00056	1.67	.00008	.00053	.00259
%RSD	2.7030	.82694	9.0412	44.890	1.7022	5.3404	64.309	.65665	3.0200	74.377	2718.2

#1	-.00236	49.034	.42390	.00407	.06197	-.00158	-.00048	255.22	.00273	-.00034	-.00193
#2	-.00227	49.611	.37295	.00211	.06348	-.00170	-.00127	252.86	.00262	-.00110	.00174

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.6578	-.01088	-.00034	-.00147	-.00316	-.00247	.00047	5.2103	-.01295	.00180	10.410
Stddev	.0178	.00195	.00480	.01515	.03242	.00102	.00003	.0008	.00053	.00085	.048
%RSD	.38232	17.881	1409.1	1027.0	1027.0	41.141	6.2432	.01510	4.0714	47.530	.46130

#1	4.6452	-.01226	-.00374	.00924	.01977	-.00175	.00045	5.2098	-.01332	.00240	10.376
#2	4.6704	-.00950	.00305	-.01219	-.02608	-.00319	.00049	5.2109	-.01258	.00119	10.444

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	5.0000										
Range	-5.0000%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00329	-.00198	-.15660
Stddev	.00021	.00085	.00032
%RSD	6.4051	43.172	.20721

#1	.00344	-.00258	-.15683
#2	.00315	-.00137	-.15637

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2819.9	45952.	5565.9
Stddev	7.6	266.	35.0
%RSD	.26941	.57805	.62943

#1	2825.3	46139.	5541.1
#2	2814.5	45764.	5590.6

Sample Name: CCV-3296664 Acquired: 6/1/2015 18:45:00 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52270	F .56713	.99795	.49523	.49623	.49358	.00156	5.0423	.50559	.52859	F .43041	.49333
Stddev	.00192	.00381	.00484	.00188	.00114	.00164	.00226	.0228	.00086	.00145	.00135	.00253
%RSD	.36799	.67222	.48522	.37928	.23019	.33126	144.23	.45152	.16974	.27338	.31375	.51188

#1	.52406	.56983	.99452	.49390	.49543	.49243	-.00003	5.0262	.50499	.52757	.42945	.49512
#2	.52134	.56444	1.0014	.49655	.49704	.49474	.00316	5.0584	.50620	.52961	.43136	.49154

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value		.50000									.50000	
Range		10.490%									-10.490%	

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.4768	52.271	1.0323	20.938	.54577	.51087	5.3964	.52883	1.0103	1.0015	-.01732	.95591
Stddev	.0009	.123	.0015	.044	.00027	.00353	.0313	.00411	.0053	.0062	.01057	.01113
%RSD	.03587	.23481	.14710	.20797	.05013	.69107	.57945	.77764	.52071	.62307	61.043	1.1643

#1	2.4761	52.184	1.0312	20.969	.54558	.50837	5.3743	.52592	1.0065	.99711	-.00985	.94804
#2	2.4774	52.358	1.0334	20.907	.54597	.51336	5.4185	.53174	1.0140	1.0059	-.02480	.96378

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.93642	5.1226	10.962	1.0198	.49802	-.00418	.53460	.99456	.00408	.54581	F .58430	.48729
Stddev	.00216	.0536	.115	.0056	.00113	.00381	.00069	.00582	.00325	.00114	.00034	.00206
%RSD	.23061	1.0462	1.0462	.54840	.22698	90.989	.12828	.58522	79.651	.20973	.05869	.42298

#1	.93795	5.0847	10.881	1.0159	.49722	-.00688	.53412	.99045	.00637	.54500	.58454	.48584
#2	.93489	5.1605	11.043	1.0238	.49882	-.00149	.53509	.99868	.00178	.54662	.58405	.48875

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Fail	Chk Pass				
Value											.50000	
Range											10.490%	

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2811.9	45801.	5374.5
Stddev	.5	32.	34.9
%RSD	.01628	.07085	.64865

#1	2812.2	45778.	5399.1
#2	2811.5	45824.	5349.8

Sample Name: CCB Acquired: 6/1/2015 18:47:30 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0007	-0.00050	.00118	.00189	.00067	-0.00003	.00279	.00932	-0.00028	.00008	.00022	.00061	.00561
Stddev	.00018	.00022	.00323	.00001	.00092	.00019	.00161	.00911	.00011	.00005	.00009	.00040	.00285
%RSD	250.39	44.229	273.41	.67852	136.72	652.35	57.702	97.767	39.554	62.764	41.867	64.484	50.721
#1	.00006	-0.00066	-0.00110	.00188	.00132	.00010	.00393	.01577	-0.00020	.00004	.00028	.00089	.00763
#2	-0.00020	-0.00035	.00346	.00190	.00002	-0.00016	.00165	.00288	-0.00036	.00012	.00015	.00033	.00360

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.34890	.00558	.00210	.00026	-0.00083	.13648	.00056	-0.00729	-0.00030	-0.01518	-0.00113	-0.00296	.01390
Stddev	.06600	.00071	.00661	.00001	.00050	.03302	.00010	.00021	.00085	.00262	.00147	.00354	.00870
%RSD	18.918	12.761	314.55	3.7319	60.588	24.191	17.878	2.9186	282.93	17.268	130.48	119.63	62.618
#1	.30223	.00508	.00678	.00025	-0.00118	.15982	.00049	-0.00744	.00030	-0.01704	-0.00217	-0.00546	.00775
#2	.39558	.00609	-0.00257	.00026	-0.00047	.11313	.00064	-0.00714	-0.00091	-0.01333	-0.00009	-0.00046	.02006

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02975	-0.00197	.00041	-0.00144	-0.00054	.00241	-0.02393	.00029	.00036	-0.00723
Stddev	.01863	.00015	.00018	.00063	.00027	.00273	.01174	.00035	.00059	.00383
%RSD	62.618	7.5687	42.934	43.844	49.912	113.01	49.078	122.31	164.44	52.915
#1	.01658	-0.00186	.00053	-0.00189	-0.00035	.00434	-0.03224	.00053	.00078	-0.00453
#2	.04292	-0.00207	.00028	-0.00099	-0.00073	.00048	-0.01563	.00004	-0.00006	-0.00994

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2841.7	46349.	5501.3
Stddev	6.0	17.	33.9
%RSD	.21014	.03733	.61577
#1	2837.4	46361.	5525.2
#2	2845.9	46337.	5477.3

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01097	.11948	.01087	.10313	.01049	.00098	.10564	.21757	.00518	.01135	.00922	.01542
Stddev	.00047	.00107	.00062	.00214	.00014	.00005	.00130	.00164	.00024	.00003	.00023	.00071
%RSD	4.2628	.89701	5.6945	2.0745	1.3066	4.7244	1.2269	.75490	4.5563	.26139	2.5099	4.5774

#1	.01064	.12023	.01043	.10465	.01059	.00095	.10472	.21873	.00535	.01137	.00939	.01492
#2	.01130	.11872	.01131	.10162	.01039	.00101	.10656	.21641	.00501	.01133	.00906	.01591

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10371	3.5153	F .01500	.22482	.01177	.02017	1.1914	.04460	2.9983	.00780	-0.1692	.00855
Stddev	.00177	.0044	.00099	.00361	.00003	.00044	.0009	.00044	.0217	.00038	.00558	.00063
%RSD	1.7063	.12512	6.6129	1.6067	.24900	2.1769	.07358	.97870	.72523	4.9309	32.948	7.4074

#1	.10246	3.5122	.01570	.22738	.01175	.02048	1.1908	.04491	3.0136	.00808	-0.1298	.00899
#2	.10496	3.5184	.01430	.22227	.01179	.01986	1.1920	.04429	2.9829	.00753	-0.2086	.00810

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01150	.51569	1.1036	.10273	.01029	.01568	.00992	.01845	F .03282	.01129	F .02729	F .00849
Stddev	.00017	.02599	.0556	.00096	.00005	.00188	.00001	.00003	.02176	.00094	.00025	.00095
%RSD	1.4893	5.0395	5.0395	.93142	.50566	11.961	.11890	.18734	66.325	8.3143	.90970	11.143

#1	.01162	.49732	1.0643	.10341	.01032	.01435	.00991	.01847	.01743	.01063	.02746	.00782
#2	.01138	.53407	1.1429	.10206	.01025	.01700	.00993	.01842	.04820	.01196	.02711	.00916

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Fail							
Value									.06000		.02000	.01500
Range									-30.000%		30.000%	-30.000%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2844.2	46395.	5522.8
Stddev	.3	196.	2.7
%RSD	.01056	.42352	.04905

#1	2844.0	46256.	5520.9
#2	2844.4	46534.	5524.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00073	.00235	-.00349	.00833	.00134	-.00012	.00217	W .11880	-.00026
Stddev	.00036	.00035	.00434	.00040	.00049	.00011	.00181	.00336	.00005
%RSD	49.618	14.919	124.51	4.8032	36.490	89.603	83.539	2.8280	18.804

#1	.00098	.00210	-.00656	.00804	.00169	-.00004	.00345	.11642	-.00030
#2	.00047	.00260	-.00042	.00861	.00099	-.00020	.00089	.12117	-.00023

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								.10000	
Low Limit								-.10000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00086	.00024	.00284	.01433	.39230	.00337	.00923	.00036	-.00010
Stddev	.00007	.00007	.00009	.00119	.00531	.00050	.00291	.00013	.00036
%RSD	8.6301	28.257	3.2964	8.3013	1.3530	14.863	31.539	35.904	347.59

#1	-.00092	.00028	.00278	.01349	.39605	.00372	.00717	.00045	.00015
#2	-.00081	.00019	.00291	.01517	.38855	.00302	.01128	.00027	-.00035

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	325.89	.00004	-.00450	-.00091	-.01405	-.00446	-.00418	.02876	.06155
Stddev	1.49	.00056	.00128	.00056	.00187	.00038	.00217	.00725	.01552
%RSD	.45711	1374.4	28.557	61.727	13.345	8.4868	51.952	25.212	25.212

#1	326.94	.00043	-.00541	-.00131	-.01537	-.00419	-.00571	.02363	.05057
#2	324.83	-.00035	-.00359	-.00051	-.01272	-.00473	-.00264	.03389	.07252

Check ?	None	Chk Pass	None						
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00168	.00041	.00027	-.00020	.00360	-.02386	-.00029	.00100	-.00550
Stddev	.00009	.00003	.00118	.00015	.00087	.05944	.00017	.00046	.00246
%RSD	5.5617	8.2591	436.83	73.336	24.066	249.08	57.810	46.411	44.693

#1	-.00162	.00043	-.00057	-.00031	.00422	-.06589	-.00017	.00133	-.00724
#2	-.00175	.00039	.00111	-.00010	.00299	.01817	-.00041	.00067	-.00376

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2746.0	44607.	5534.8
Stddev	4.8	128.	3.7
%RSD	.17418	.28752	.06658

#1	2749.4	44516.	5537.4
#2	2742.6	44697.	5532.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.21790	F .43344	.79415	.20053	2.2636	.00948	.37987	9.5232	.22689
Stddev	.00098	.00158	.00663	.00002	.0006	.00001	.00276	.0032	.00170
%RSD	.45015	.36488	.83542	.01196	.02537	.15548	.72761	.03354	.74861

#1	.21720	.43456	.79885	.20055	2.2640	.00949	.37791	9.5209	.22569
#2	.21859	.43232	.78946	.20052	2.2632	.00947	.38182	9.5254	.22810

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit		.43200							
Low Limit		.34400							

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10072	F .82724	.43597	.19323	10.836	.20775	9.7754	.10675	.20732
Stddev	.00086	.00342	.00330	.00074	.021	.00174	.0072	.00018	.00159
%RSD	.85851	.41384	.75742	.38541	.19774	.83707	.07411	.16622	.76806

#1	.10011	.82966	.43364	.19375	10.821	.20898	9.7805	.10662	.20619
#2	.10133	.82482	.43831	.19270	10.851	.20652	9.7702	.10688	.20844

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.25200							
Low Limit		.16800							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 305.86	.10260	2.0906	1.0731	.36853	.10176	.57148	2.0194	F 4.3216
Stddev	.07	.00145	.0298	.0117	.00352	.00129	.00067	.0122	.0261
%RSD	.02264	1.4119	1.4237	1.0867	.95554	1.2657	.11758	.60286	.60286

#1	305.81	.10157	2.0696	1.0649	.36604	.10085	.57100	2.0108	4.3031
#2	305.91	.10362	2.1117	1.0814	.37102	.10267	.57195	2.0280	4.3400

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit	11.200								4.9220
Low Limit	9.1000								4.0200

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.39431	.18890	.20629	.20996	.37136	.38913	.10848	.58042	.08395
Stddev	.00460	.00004	.00033	.00016	.00351	.00124	.00016	.00053	.00363
%RSD	1.1667	.02240	.16157	.07753	.94642	.31856	.14765	.09082	4.3258

#1	.39106	.18893	.20606	.20985	.36887	.39001	.10859	.58005	.08652
#2	.39756	.18887	.20653	.21008	.37384	.38825	.10837	.58079	.08138

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2720.7	44601.	5553.9
Stddev	9.1	97.	57.3
%RSD	.33467	.21725	1.0324

#1	2727.2	44533.	5594.4
#2	2714.3	44670.	5513.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00051	.19128	-.00152	.10890	.02591	.00007	.00261	12.577	-.00038
Stddev	.00022	.00111	.00193	.00007	.00033	.00003	.00039	.176	.00027
%RSD	43.778	.58181	126.62	.06440	1.2643	38.843	15.015	1.4020	70.828

#1	.00067	.19049	-.00289	.10885	.02614	.00005	.00289	12.452	-.00019
#2	.00035	.19206	-.00016	.10895	.02567	.00009	.00233	12.701	-.00056

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	.00125	.00169	.20265	.95481	.00818	.96479	.02861	.02222
Stddev	.00036	.00001	.00012	.00008	.01101	.00207	.02191	.00027	.00045
%RSD	1099.8	.50831	7.1941	.04179	1.1528	25.304	2.2711	.93712	2.0221

#1	-.00028	.00125	.00177	.20271	.94703	.00965	.94930	.02842	.02191
#2	.00022	.00125	.00160	.20259	.96260	.00672	.98029	.02880	.02254

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	274.70	.00231	.19254	-.00063	1.0239	-.00186	-.00409	1.4575	3.1191
Stddev	4.40	.00019	.00283	.00005	.0033	.00077	.00453	.0089	.0191
%RSD	1.6033	8.3013	1.4689	8.7108	.32440	41.379	110.92	.61313	.61313

#1	271.59	.00245	.19454	-.00066	1.0215	-.00132	-.00088	1.4512	3.1056
#2	277.82	.00218	.19054	-.00059	1.0262	-.00241	-.00729	1.4638	3.1326

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00065	.07492	-.00130	-.00082	-.00123	.00798	-.00008	1.4906	-.00617
Stddev	.00023	.00057	.00032	.00058	.00039	.00420	.00066	.0274	.00142
%RSD	34.763	.76442	24.433	70.189	31.378	52.672	819.40	1.8370	23.083

#1	-.00049	.07452	-.00152	-.00123	-.00150	.00501	.00038	1.4712	-.00717
#2	-.00082	.07533	-.00107	-.00041	-.00096	.01095	-.00054	1.5099	-.00516

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2706.0	44119.	5367.5
Stddev	.5	62.	65.6
%RSD	.01975	.14163	1.2219

#1	2706.4	44075.	5413.8
#2	2705.6	44163.	5321.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00095	.01858	.00527	.06033	.04594	-.00001	.00297	22.570	.00005
Stddev	.00061	.00065	.00053	.00045	.00025	.00004	.00324	.242	.00005
%RSD	64.250	3.5130	10.109	.73924	.54907	311.82	109.26	1.0715	87.950

#1	.00052	.01811	.00565	.06001	.04577	.00002	.00068	22.741	.00009
#2	.00138	.01904	.00490	.06064	.04612	-.00004	.00526	22.399	.00002

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00028	.00053	.00350	.06665	8.3012	.00664	5.2541	.06012	-.00005
Stddev	.00009	.00000	.00024	.00079	.0253	.00122	.0755	.00110	.00018
%RSD	31.414	.04730	6.8457	1.1780	.30421	18.298	1.4360	1.8307	389.87

#1	.00034	.00053	.00333	.06609	8.3191	.00750	5.2007	.05934	.00008
#2	.00022	.00053	.00367	.06720	8.2834	.00578	5.3074	.06090	-.00018

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	342.20	.00624	.01121	.00675	6.3822	-.00427	-.00027	4.0382	8.6418
Stddev	2.29	.00020	.00122	.00064	.0109	.00001	.00917	.0415	.0888
%RSD	.66860	3.2427	10.878	9.4651	.17072	.31446	3376.5	1.0274	1.0274

#1	343.82	.00609	.01034	.00630	6.3745	-.00428	.00621	4.0675	8.7045
#2	340.58	.00638	.01207	.00720	6.3899	-.00426	-.00675	4.0089	8.5790

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00059	.20156	.00114	-.00071	-.00184	-.02534	-.00015	.03252	-.00483
Stddev	.00083	.00179	.00103	.00022	.00053	.00401	.00028	.00044	.00159
%RSD	139.12	.88767	90.523	31.622	28.696	15.825	183.52	1.3471	32.955

#1	-.00001	.20283	.00041	-.00055	-.00221	-.02250	.00004	.03283	-.00371
#2	-.00118	.20030	.00187	-.00087	-.00146	-.02817	-.00035	.03221	-.00596

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2682.8	43966.	5319.0
Stddev	17.4	141.	47.3
%RSD	.64751	.31958	.88996

#1	2695.0	43867.	5285.6
#2	2670.5	44066.	5352.5

Sample Name: 280-69547-A-1-E Acquired: 6/1/2015 19:03:20 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 279558 6010B TCLP Q3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00067	.00376	-.00151	.01833	.35473	-.00017	.00337	138.78	.00021
Stddev	.00038	.00063	.00755	.00002	.00166	.00006	.00047	.57	.00002
%RSD	57.291	16.670	499.76	.08741	.46715	33.426	13.828	.41307	8.7227

#1	.00094	.00420	-.00685	.01832	.35590	-.00022	.00370	139.19	.00020
#2	.00040	.00331	.00383	.01834	.35356	-.00013	.00304	138.38	.00023

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00121	.00099	.00177	.00298	1.2962	.00858	5.7032	.96526	-.00290
Stddev	.00025	.00027	.00016	.00157	.0317	.00090	.0298	.00018	.00061
%RSD	20.672	26.879	8.9145	52.741	2.4487	10.539	.52186	.01855	21.191

#1	.00103	.00118	.00165	.00187	1.2737	.00794	5.6821	.96538	-.00333
#2	.00138	.00080	.00188	.00409	1.3186	.00922	5.7242	.96513	-.00247

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	282.16	.00753	-.00282	.01623	.39806	.00106	.00088	.94066	2.0130
Stddev	1.40	.00028	.00158	.00067	.00559	.00350	.00314	.01947	.0417
%RSD	.49779	3.6612	55.965	4.1302	1.4040	328.94	355.71	2.0701	2.0701

#1	283.15	.00733	-.00394	.01575	.40201	.00354	-.00134	.95443	2.0425
#2	281.17	.00772	-.00170	.01670	.39410	-.00141	.00311	.92689	1.9835

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00081	.39446	-.00075	-.00071	-.00948	-.01916	.00001	.00572	-.00530
Stddev	.00076	.00203	.00133	.00096	.00346	.01794	.00011	.00089	.00346
%RSD	93.978	.51580	176.81	135.68	36.545	93.629	1257.8	15.502	65.339

#1	-.00027	.39590	-.00169	-.00139	-.00703	-.00647	.00008	.00634	-.00285
#2	-.00135	.39302	.00019	-.00003	-.01193	-.03184	-.00007	.00509	-.00774

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2666.7	43337.	5323.9
Stddev	3.1	67.	23.4
%RSD	.11736	.15491	.43971

#1	2668.9	43289.	5307.3
#2	2664.5	43384.	5340.4

Sample Name: 280-69547-A-1-E SD@5 Acquired: 6/1/2015 19:06:00 Type: Unk

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment: 279558 6010B TCLP Q3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00024	.00069	.00467	.00369	.07244	-.00004	.00201	27.812	-.00046
Stddev	.00092	.00003	.00773	.00006	.00077	.00010	.00015	.256	.00036
%RSD	379.19	4.9100	165.71	1.6359	1.0630	246.45	7.3816	.91874	77.963

#1	.00089	.00067	.01014	.00365	.07299	.00003	.00212	27.992	-.00021
#2	-.00041	.00072	-.00080	.00373	.07190	-.00011	.00191	27.631	-.00071

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00042	.00060	.00096	.00706	.54679	.00533	1.2107	.19763	-.00165
Stddev	.00039	.00018	.00030	.00439	.02123	.00020	.0013	.00048	.00041
%RSD	94.403	29.763	31.307	62.239	3.8818	3.7458	.10488	.24105	25.075

#1	.00070	.00072	.00118	.01017	.56179	.00547	1.2098	.19796	-.00135
#2	.00014	.00047	.00075	.00395	.53178	.00519	1.2116	.19729	-.00194

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	57.165	.00335	-.00687	.00160	.05772	-.00062	F -.01173	.20639	.44167
Stddev	.491	.00055	.00064	.00079	.00103	.00160	.00302	.01232	.02637
%RSD	.85931	16.283	9.3747	49.238	1.7822	258.89	25.715	5.9707	5.9707

#1	56.817	.00373	-.00641	.00215	.05699	.00051	-.01386	.21510	.46032
#2	57.512	.00296	-.00732	.00104	.05844	-.00175	-.00959	.19767	.42302

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							50.000		
Low Limit							-.01000		

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00419	.08204	.00021	-.00140	-.00225	-.03155	-.00067	.00032	-.00634
Stddev	.00066	.00006	.00157	.00005	.00300	.01924	.00061	.00104	.00059
%RSD	15.704	.07443	737.70	3.6884	133.15	60.969	90.515	330.54	9.3635

#1	.00466	.08199	.00132	-.00143	-.00437	-.01795	-.00110	.00105	-.00592
#2	.00373	.08208	-.00089	-.00136	-.00013	-.04515	-.00024	-.00042	-.00676

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2731.1	44291.	5347.9
Stddev	10.4	19.	73.1
%RSD	.38093	.04291	1.3673

#1	2723.8	44304.	5296.2
#2	2738.5	44277.	5399.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .20370	.40416	.73346	.19605	2.4651	.00866	F .34497	142.30	.21160
Stddev	.00097	.00080	.00530	.00222	.0270	.00001	.00419	1.72	.00176
%RSD	.47805	.19675	.72299	1.1318	1.0946	.14532	1.2151	1.2073	.83105

#1	.20301	.40472	.73721	.19762	2.4842	.00865	.34793	143.51	.21284
#2	.20439	.40360	.72971	.19448	2.4460	.00866	.34200	141.08	.21035

Check ?	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass				
High Limit	.10000						.10000		
Low Limit	-.01000						-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09394	W .74437	.40415	.18146	11.001	.19788	14.419	1.0260	.18926
Stddev	.00128	.00154	.00208	.00477	.054	.00005	.091	.0023	.00212
%RSD	1.3589	.20687	.51458	2.6259	.49383	.02476	.63244	.22144	1.1224

#1	.09484	.74329	.40562	.18483	11.040	.19784	14.483	1.0244	.19076
#2	.09303	.74546	.40268	.17810	10.963	.19791	14.354	1.0276	.18775

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	281.68	.09960	1.9598	1.0035	.73357	.09602	.53349	2.7555	5.8967
Stddev	3.22	.00070	.0253	.0148	.00376	.00332	.01240	.0043	.0091
%RSD	1.1416	.70096	1.2882	1.4705	.51283	3.4528	2.3243	.15459	.15459

#1	283.96	.10009	1.9777	1.0139	.73623	.09836	.54226	2.7525	5.8903
#2	279.41	.09910	1.9420	.99308	.73091	.09367	.52473	2.7585	5.9032

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.36361	.55547	.19392	.19577	.33239	.34185	.10075	.53926	.07908
Stddev	.00516	.00615	.00387	.00010	.00522	.02658	.00044	.00802	.00071
%RSD	1.4181	1.1079	1.9939	.05331	1.5708	7.7763	.43919	1.4874	.90307

#1	.36726	.55982	.19665	.19569	.33609	.32305	.10044	.53359	.07958
#2	.35997	.55112	.19118	.19584	.32870	.36065	.10106	.54493	.07857

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2643.1	43560.	5327.8
Stddev	8.3	198.	65.4
%RSD	.31233	.45562	1.2270

#1	2637.3	43701.	5281.6
#2	2648.9	43420.	5374.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 22402	43927	80929	21729	2.7248	.00975	F .38588	157.15	.23347
Stddev	.00004	.00241	.00261	.00005	.0197	.00023	.00270	1.05	.00164
%RSD	.01667	.54918	.32212	.02072	.72331	2.3825	.70025	.66670	.70443

#1	.22399	.44098	.81114	.21726	2.7109	.00992	.38397	156.41	.23230
#2	.22404	.43756	.80745	.21733	2.7388	.00959	.38779	157.89	.23463

Check ?	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass				
High Limit	.10000						.10000		
Low Limit	-.01000						-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10368	W .81420	.44090	.19802	11.994	.21390	15.722	1.1237	.20952
Stddev	.00064	.00923	.00183	.00246	.075	.00125	.016	.0000	.00100
%RSD	.61876	1.1340	.41479	1.2420	.62605	.58496	.09875	.00387	.47858

#1	.10323	.80767	.44219	.19976	11.941	.21302	15.733	1.1237	.20881
#2	.10413	.82073	.43961	.19629	12.047	.21479	15.711	1.1238	.21023

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	311.23	.10918	W 2.1612	1.1050	.81713	.10778	.58677	3.0444	6.5151
Stddev	1.78	.00028	.0087	.0042	.00559	.00025	.00495	.0381	.0815
%RSD	.57173	.25396	.40222	.37564	.68445	.23297	.84369	1.2505	1.2505

#1	309.97	.10898	2.1551	1.1020	.81318	.10760	.58327	3.0175	6.4574
#2	312.49	.10937	2.1674	1.1079	.82109	.10796	.59027	3.0713	6.5727

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.39958	.61452	.21302	.21461	.36148	.40442	.11021	.59164	.08561
Stddev	.00262	.00483	.00154	.00083	.00439	.07283	.00014	.00343	.00091
%RSD	.65463	.78659	.72138	.38668	1.2157	18.009	.13051	.57900	1.0616

#1	.39773	.61110	.21194	.21402	.35837	.45592	.11031	.59406	.08496
#2	.40143	.61793	.21411	.21519	.36459	.35292	.11011	.58922	.08625

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2645.5	43003.	5260.7
Stddev	32.1	166.	32.9
%RSD	1.2123	.38649	.62544

#1	2622.8	42885.	5284.0
#2	2668.2	43120.	5237.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04806	1.0531	.19638	.11455	.44665	.04798	.00628	155.99	.05151
Stddev	.00021	.0029	.00160	.00069	.01038	.00095	.00273	3.68	.00034
%RSD	.43991	.27238	.81415	.59937	2.3238	1.9864	43.368	2.3606	.65104

#1	.04791	1.0551	.19751	.11406	.43931	.04731	.00436	153.39	.05127
#2	.04821	1.0511	.19525	.11503	.45399	.04866	.00821	158.59	.05174

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05078	.03990	.04917	1.3491	21.709	.10995	24.805	1.0068	.04611
Stddev	.00079	.00015	.00020	.0179	.650	.00124	.064	.0009	.00077
%RSD	1.5512	.36525	.40968	1.3260	2.9944	1.1297	.25832	.08851	1.6681

#1	.05023	.03980	.04903	1.3365	21.249	.10907	24.760	1.0074	.04557
#2	.05134	.04000	.04931	1.3618	22.168	.11082	24.851	1.0062	.04666

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	301.28	.05624	W 2.1154	.10864	.39331	.09755	.18827	5.9317	12.694
Stddev	7.65	.00001	.0126	.00075	.00601	.00420	.00090	.0676	.145
%RSD	2.5399	.02190	.59560	.69238	1.5284	4.3022	.47782	1.1389	1.1389

#1	295.87	.05625	2.1065	.10917	.38906	.09458	.18764	5.8839	12.592
#2	306.69	.05624	2.1243	.10810	.39756	.10051	.18891	5.9794	12.796

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09778	.43958	.20836	.05137	.17126	.50859	.05488	.24638	.03603
Stddev	.00285	.01050	.00021	.00022	.00021	.03439	.00045	.00062	.00487
%RSD	2.9181	2.3896	.09884	.42796	.12328	6.7620	.82547	.25033	13.508

#1	.09576	.43215	.20851	.05121	.17141	.48427	.05456	.24682	.03259
#2	.09980	.44701	.20822	.05152	.17111	.53290	.05520	.24595	.03948

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2655.0	43580.	5344.7
Stddev	5.2	76.	100.9
%RSD	.19588	.17333	1.8875

#1	2658.7	43633.	5416.0
#2	2651.3	43526.	5273.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00037	.02189	-.00098	.07297	.11326	-.00007	.00251	43.760	-.00031
Stddev	.00015	.00051	.00211	.00162	.00070	.00006	.00157	.523	.00006
%RSD	40.562	2.3385	215.26	2.2145	.62092	86.053	62.715	1.1945	18.434

#1	.00026	.02153	-.00247	.07183	.11376	-.00011	.00362	44.130	-.00027
#2	.00047	.02225	.00051	.07412	.11276	-.00003	.00140	43.391	-.00035

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.00130	.00346	.03442	1.6231	.00565	6.1906	4.3073	-.00200
Stddev	.00018	.00008	.00002	.00180	.0176	.00307	.0248	.00001	.00031
%RSD	432.83	6.0860	.70749	5.2421	1.0832	54.306	.39994	.00292	15.450

#1	-.00009	.00136	.00348	.03315	1.6106	.00348	6.1731	.43074	-.00222
#2	.00017	.00125	.00345	.03570	1.6355	.00782	6.2081	.43072	-.00178

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	313.02	.01168	.02096	.00930	1.4432	-.00053	-.00342	1.9856	4.2491
Stddev	3.29	.00056	.00119	.00251	.0126	.00269	.00353	.0147	.0314
%RSD	1.0518	4.7813	5.6686	26.998	.87208	508.93	103.21	.73989	.73989

#1	315.35	.01129	.02180	.01107	1.4343	-.00243	-.00093	1.9752	4.2269
#2	310.70	.01208	.02012	.00752	1.4521	.00137	-.00592	1.9960	4.2714

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00071	.29059	-.00126	.00265	-.00344	-.03894	.00695	.01232	-.00535
Stddev	.00072	.00399	.00078	.00035	.00403	.00936	.00048	.00052	.00257
%RSD	100.96	1.3722	61.848	13.337	116.93	24.042	6.9593	4.2275	48.005

#1	-.00122	.29341	-.00182	.00240	-.00060	-.03232	.00729	.01195	-.00354
#2	-.00020	.28777	-.00071	.00290	-.00629	-.04556	.00661	.01269	-.00717

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2643.3	43344.	5310.4
Stddev	9.2	132.	74.4
%RSD	.34962	.30485	1.4007

#1	2649.8	43250.	5257.8
#2	2636.7	43437.	5363.0

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00496	51.482	-.00044	.00005	.00119	.00009	.97026	.02939	-.00045	-.00033	.00085
Stddev	.00021	.008	.00155	.00061	.00022	.00008	.00976	.00018	.00022	.00024	.00038
%RSD	4.3053	.01584	355.74	1257.2	18.050	91.478	1.0058	.62443	49.002	74.099	44.002

#1	.00511	51.477	.00066	-.00038	.00104	.00003	.97717	.02952	-.00061	-.00015	.00059
#2	.00481	51.488	-.00153	.00048	.00134	.00015	.96336	.02926	-.00030	-.00050	.00112

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00208	49.335	.42799	.00398	.06084	-.00135	-.00077	254.37	.00306	-.00029	-.00140
Stddev	.00072	.077	.01537	.00165	.00216	.00006	.00010	.34	.00051	.00023	.00053
%RSD	34.636	.15533	3.5901	41.418	3.5554	4.4357	13.571	.13321	16.734	78.588	38.257

#1	-.00157	49.281	.43886	.00514	.05931	-.00139	-.00085	254.61	.00342	-.00013	-.00102
#2	-.00259	49.389	.41713	.00281	.06237	-.00131	-.00070	254.13	.00270	-.00045	-.00177

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.6448	-.01057	.00383	-.00912	-.01951	-.00339	.00061	5.2466	-.01234	.00538	W 10.530
Stddev	.0325	.00011	.00294	.00426	.00911	.00193	.00021	.0012	.00020	.00397	.234
%RSD	.69984	.99458	76.812	46.670	46.670	57.026	33.518	.02327	1.6204	73.769	2.2202

#1	4.6678	-.01050	.00175	-.00611	-.01307	-.00476	.00076	5.2457	-.01248	.00257	10.695
#2	4.6219	-.01065	.00591	-.01213	-.02595	-.00202	.00047	5.2475	-.01220	.00818	10.364

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value	5.0000										10.000
Range	-5.0000%										5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00166	-.00089	-.15903
Stddev	.00101	.00019	.00345
%RSD	60.666	21.188	2.1686

#1	.00237	-.00103	-.16146
#2	.00095	-.00076	-.15659

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2708.1	43728.	5239.7
Stddev	15.9	39.	16.2
%RSD	.58579	.08927	.31005

#1	2696.9	43756.	5228.3
#2	2719.4	43701.	5251.2

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52885	F .57146	.99176	.49355	.48795	.48615	.00325	5.0267	.50975	.52472	F .41739
Stddev	.00190	.00447	.00300	.00166	.00310	.00288	.00221	.0279	.00200	.00155	.00149
%RSD	.36021	.78298	.30286	.33553	.63550	.59217	68.144	.55531	.39236	.29530	.35698

#1	.53019	.57462	.99388	.49472	.48576	.48411	.00482	5.0069	.51116	.52582	.41634
#2	.52750	.56829	.98963	.49238	.49014	.48818	.00168	5.0464	.50833	.52363	.41845

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value		.50000									.50000
Range		10.490%									-10.490%

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49270	2.4588	51.725	1.0246	20.932	W .55167	.50524	5.4507	.52524	1.0154	.99091
Stddev	.00013	.0246	.189	.0049	.003	.00108	.00181	.0365	.00308	.0039	.00426
%RSD	.02728	1.0001	.36623	.47521	.01259	.19640	.35886	.66959	.58570	.38389	.42978

#1	.49260	2.4414	51.591	1.0212	20.930	.55244	.50653	5.4249	.52741	1.0181	.99392
#2	.49279	2.4762	51.859	1.0281	20.934	.55091	.50396	5.4765	.52306	1.0126	.98789

Check ?	Chk Pass	Chk Warn	Chk Pass								
Value						.50000					
Range						10.000%					

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01627	.95009	.93463	5.0777	10.866	1.0127	.49005	-.00272	.53650	.98591	-.01944
Stddev	.00365	.00351	.00843	.0064	.014	.0052	.00209	.00134	.00089	.00352	.00762
%RSD	22.436	.36905	.90233	.12637	.12637	.51499	.42709	49.328	.16515	.35735	39.210

#1	-.01369	.95257	.94060	5.0822	10.876	1.0164	.48857	-.00367	.53713	.98840	-.01405
#2	-.01885	.94761	.92867	5.0731	10.856	1.0090	.49153	-.00177	.53587	.98342	-.02483

Check ?	None	Chk Pass	None	Chk Pass	Chk Pass	None					
Value											
Range											

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	W .55145	F .60009	.48238
Stddev	.00141	.00262	.00135
%RSD	.25497	.43684	.27899

#1	.55244	.60194	.48143
#2	.55045	.59824	.48333

Check ?	Chk Warn	Chk Fail	Chk Pass
Value	.50000	.50000	
Range	10.000%	10.490%	

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2743.6	44281.	5288.1
Stddev	11.7	200.	2.2
%RSD	.42590	.45241	.04146

#1	2735.4	44139.	5286.5
#2	2751.9	44423.	5289.6

Sample Name: CCB Acquired: 6/1/2015 19:24:17 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .00102	-.00010	-.00173	.00019	.00041	-.00005	.00368	.00462	-.00056	.00014	.00025
Stddev	.00014	.00010	.00337	.00093	.00004	.00007	.00086	.00094	.00008	.00016	.00027
%RSD	13.889	100.47	194.52	480.40	10.979	136.49	23.429	20.253	14.012	112.54	110.60

#1	.00112	-.00003	-.00412	-.00046	.00038	-.00010	.00307	.00528	-.00050	.00026	.00005
#2	.00092	-.00017	.00065	.00085	.00044	.00000	.00429	.00396	-.00061	.00003	.00044

Check ?	Chk Warn	Chk Pass									
High Limit	.00100										
Low Limit	-.00100										

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00021	.00106	.36454	.00448	.00292	.00015	.00019	.19621	-.00029	-.00310	F -.00305
Stddev	.00007	.00201	.02028	.00198	.00214	.00002	.00061	.00432	.00019	.00258	.00111
%RSD	33.274	189.88	5.5642	44.249	73.329	12.075	317.13	2.2024	65.354	82.974	36.464

#1	.00016	.00248	.35020	.00588	.00444	.00017	.00062	.19927	-.00043	-.00128	-.00384
#2	.00026	-.00036	.37888	.00308	.00141	.00014	-.00024	.19316	-.00016	-.00493	-.00227

Check ?	Chk Pass	Chk Fail									
High Limit											.00300
Low Limit											-.00300

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.02434	-.00088	F -.00706	.02303	.04929	-.00132	.00018	-.00229	-.00044	.00429	.00974
Stddev	.00440	.00108	.00147	.02213	.04736	.00021	.00014	.00122	.00068	.00394	.00401
%RSD	18.079	123.53	20.772	96.087	96.087	15.860	78.349	53.254	155.93	91.887	41.182

#1	-.02123	-.00011	-.00602	.03868	.08278	-.00117	.00008	-.00142	-.00092	.00708	.00690
#2	-.02745	-.00164	-.00809	.00738	.01580	-.00147	.00028	-.00315	.00004	.00150	.01257

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass							
High Limit			.00500								
Low Limit			-.00500								

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	-.00075	-.00007	-.00598
Stddev	.00035	.00024	.00179
%RSD	46.401	361.87	29.933

#1	-.00050	-.00024	-.00471
#2	-.00099	.00010	-.00724

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2759.4	44533.	5284.2
Stddev	11.0	214.	45.1
%RSD	.39887	.48123	.85430

#1	2751.6	44382.	5252.3
#2	2767.2	44685.	5316.1

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01111	.11777	.01114	.09983	.01058	.00089	.10396	.21528	.00509	.01152	.00887	.01511
Stddev	.00021	.00003	.00150	.00194	.00006	.00001	.00039	.00291	.00006	.00004	.00011	.00082
%RSD	1.8530	.02644	13.470	1.9419	.61317	.60466	.37832	1.3505	1.2332	.34515	1.2420	5.4371

#1	.01096	.11779	.01220	.10120	.01053	.00090	.10368	.21734	.00513	.01155	.00879	.01569
#2	.01125	.11775	.01008	.09846	.01062	.00089	.10424	.21323	.00504	.01149	.00895	.01453

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10139	3.4861	F .01601	.22537	.01177	.01957	1.2487	.04414	2.9777	.00712	-0.2098	.00911
Stddev	.00123	.0320	.00018	.00079	.00010	.00055	.0242	.00012	.0143	.00071	.00443	.00274
%RSD	1.2152	.91873	1.1233	.35174	.87360	2.7953	1.9359	.26821	.48029	9.9819	21.107	30.105

#1	.10226	3.4635	.01589	.22593	.01184	.01996	1.2316	.04406	2.9878	.00762	-.01785	.00717
#2	.10052	3.5088	.01614	.22481	.01169	.01919	1.2658	.04422	2.9676	.00662	-.02411	.01105

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .00911	.52744	1.1287	.10047	.01029	.01434	.00992	.01672	F .02868	.01123	.02570	F .00583
Stddev	.00197	.00994	.0213	.00035	.00000	.00406	.00017	.00096	.02243	.00031	.00035	.00020
%RSD	21.634	1.8843	1.8843	.34473	.04593	28.329	1.7104	5.7226	78.210	2.7206	1.3812	3.4219

#1	.00771	.53447	1.1438	.10071	.01030	.01722	.00980	.01739	.04455	.01144	.02544	.00597
#2	.01050	.52041	1.1137	.10022	.01029	.01147	.01004	.01604	.01282	.01101	.02595	.00569

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail						
Value	.01500								.06000			.01500
Range	-30.000%								-30.000%			-30.000%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2782.9	45320.	5335.4
Stddev	1.5	86.	76.4
%RSD	.05544	.18953	1.4321

#1	2784.0	45259.	5389.5
#2	2781.8	45381.	5281.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00037	.00362	.00114	.00054	.00090	-.00007	.00260	.01857	-.00021
Stddev	.00057	.00056	.00254	.00072	.00013	.00007	.00330	.00755	.00023
%RSD	155.88	15.350	223.35	134.30	14.584	90.732	126.91	40.625	112.11

#1	-.00004	.00401	-.00066	.00105	.00080	-.00003	.00027	.01324	-.00004
#2	.00077	.00323	.00293	.00003	.00099	-.00012	.00493	.02391	-.00037

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00022	.00038	.00017	.00701	.35186	.00365	.00547	.00056	-.00019
Stddev	.00020	.00001	.00005	.00059	.00749	.00137	.00497	.00003	.00021
%RSD	91.827	3.2301	27.460	8.4721	2.1284	37.435	90.755	5.6115	113.30

#1	.00008	.00037	.00020	.00743	.35715	.00462	.00196	.00054	-.00004
#2	.00036	.00039	.00014	.00659	.34656	.00268	.00899	.00059	-.00034

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.15221	.00045	-.00585	-.00010	-.02052	-.00282	-.00523	.01891	.04047
Stddev	.00561	.00007	.00045	.00061	.00037	.00131	.00036	.02296	.04914
%RSD	3.6885	16.332	7.6408	628.75	1.8020	46.366	6.9041	121.44	121.44

#1	.14824	.00040	-.00553	.00034	-.02078	-.00189	-.00548	.00267	.00572
#2	.15618	.00050	-.00616	-.00053	-.02026	-.00374	-.00497	.03515	.07522

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00157	.00027	.00131	-.00062	-.00124	-.02189	-.00033	.00260	-.00509
Stddev	.00012	.00011	.00007	.00026	.00020	.01199	.00024	.00070	.00075
%RSD	7.9143	40.824	5.0214	41.607	16.054	54.770	73.942	26.770	14.751

#1	-.00165	.00035	.00136	-.00081	-.00110	-.03037	-.00050	.00309	-.00562
#2	-.00148	.00019	.00127	-.00044	-.00138	-.01341	-.00016	.00211	-.00456

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2819.4	45873.	5463.4
Stddev	5.1	291.	40.1
%RSD	.17972	.63400	.73441

#1	2815.8	46079.	5491.7
#2	2823.0	45668.	5435.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05352	2.1556	.98790	.98988	1.9093	.04770	1.8893	47.547	.10035
Stddev	.00055	.0016	.00319	.00179	.0015	.00040	.0046	.057	.00004
%RSD	1.0198	.07574	.32316	.18059	.07997	.83177	.24220	.11909	.04050

#1	.05390	2.1544	.99016	.99115	1.9082	.04742	1.8926	47.507	.10032
#2	.05313	2.1567	.98564	.98862	1.9104	.04799	1.8861	47.587	.10037

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50532	F .16314	.24267	.95914	51.112	1.0032	51.171	.54001	1.0405
Stddev	.00186	.00071	.00159	.00440	.094	.0013	.165	.00058	.0011
%RSD	.36857	.43629	.65395	.45900	.18314	.13266	.32174	.10721	.10485

#1	.50663	.16364	.24379	.95602	51.045	1.0041	51.288	.54042	1.0397
#2	.50400	.16264	.24155	.96225	51.178	1.0023	51.055	.53960	1.0413

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.608	.50558	10.420	.49347	1.8621	.49035	1.9340	10.027	21.458
Stddev	.075	.00015	.020	.00251	.0176	.00332	.0069	.016	.033
%RSD	.14472	.02964	.19241	.50843	.94296	.67674	.35682	.15560	.15560

#1	51.556	.50569	10.406	.49525	1.8745	.49270	1.9291	10.016	21.434
#2	51.661	.50548	10.434	.49170	1.8496	.48801	1.9389	10.038	21.482

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0361	.95901	1.0485	1.0448	1.9675	2.0599	.54032	F .56941	.44603
Stddev	.0040	.00157	.0074	.0005	.0091	.0285	.00016	.00141	.00224
%RSD	.19484	.16355	.70612	.04829	.46174	1.3854	.02960	.24775	.50315

#1	2.0333	.95791	1.0537	1.0445	1.9611	2.0397	.54021	.57041	.44445
#2	2.0389	.96012	1.0432	1.0452	1.9740	2.0801	.54043	.56841	.44762

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit								.55500	
Low Limit								.42500	

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2729.6	44433.	5402.5
Stddev	1.6	27.	.4
%RSD	.05703	.06019	.00769

#1	2728.5	44414.	5402.8
#2	2730.7	44452.	5402.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	.00702	.00145	2.9202	.00169	-.00007	.00109	16.299	-.00017
Stddev	.00006	.00027	.00248	.0394	.00007	.00006	.00192	.232	.00018
%RSD	62.562	3.9158	171.12	1.3508	4.0824	85.409	176.54	1.4213	109.16

#1	.00005	.00682	.00321	2.9481	.00173	-.00012	-.00027	16.463	-.00030
#2	.00013	.00721	-.00030	2.8923	.00164	-.00003	.00244	16.136	-.00004

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00080	.00023	.00085	.00594	.76252	.00744	22.097	.08103	.00032
Stddev	.00035	.00014	.00064	.00046	.05784	.00219	.087	.00038	.00057
%RSD	43.684	61.010	75.380	7.6890	7.5848	29.374	.39189	.46899	178.58

#1	.00055	.00013	.00040	.00561	.72163	.00590	22.159	.08130	-.00008
#2	.00104	.00032	.00130	.00626	.80342	.00899	22.036	.08076	.00072

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.83994	.00825	-.00938	.00042	21.188	-.00030	.02433	.57274	1.2257
Stddev	.02675	.00023	.00245	.00109	.135	.00113	.00878	.00756	.0162
%RSD	3.1850	2.8075	26.074	260.89	.63906	373.48	36.080	1.3194	1.3194

#1	.82103	.00808	-.00765	.00119	21.284	.00050	.03053	.56739	1.2142
#2	.85886	.00841	-.01111	-.00035	21.092	-.00110	.01812	.57808	1.2371

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00641	.05067	-.00185	-.00062	-.00160	-.02656	-.00083	.00426	-.00376
Stddev	.00069	.00002	.00293	.00032	.00027	.04197	.00025	.00024	.00147
%RSD	10.754	.04220	158.95	52.081	16.820	158.02	30.130	5.5359	39.036

#1	.00592	.05066	-.00392	-.00039	-.00179	.00312	-.00101	.00443	-.00272
#2	.00690	.05069	.00023	-.00084	-.00141	-.05624	-.00065	.00409	-.00480

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2790.5	45203.	5408.5
Stddev	8.8	60.	110.4
%RSD	.31638	.13354	2.0409

#1	2796.7	45160.	5330.4
#2	2784.2	45246.	5486.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00112	.00138	-.00214	.45594	.00045	-.00009	.00047	2.6511	-.00007
Stddev	.00030	.00025	.00317	.00077	.00006	.00018	.00104	.0726	.00014
%RSD	26.810	18.177	148.49	.16955	12.245	207.24	220.24	2.7393	187.51

#1	.00091	.00120	-.00438	.45649	.00049	.00004	-.00026	2.5998	-.00017
#2	.00133	.00156	.00011	.45539	.00041	-.00021	.00121	2.7025	.00002

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00020	.00022	.00111	.08613	.43482	.00551	3.5184	.01444	.00003
Stddev	.00028	.00019	.00005	.00114	.01426	.00018	.0088	.00010	.00022
%RSD	142.00	85.299	4.9522	1.3290	3.2787	3.2354	.25085	.72472	728.85

#1	.00039	.00009	.00107	.08532	.42473	.00564	3.5247	.01452	.00019
#2	.00000	.00036	.00115	.08694	.44490	.00538	3.5122	.01437	-.00013

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.23034	.00140	-.00895	-.00114	3.2430	-.00157	-.00097	.12593	.26950
Stddev	.00155	.00050	.00083	.00067	.0091	.00132	.00043	.02333	.04992
%RSD	.67150	35.493	9.2248	58.399	.27900	84.041	44.027	18.524	18.524

#1	.22925	.00175	-.00836	-.00067	3.2494	-.00064	-.00067	.10944	.23420
#2	.23144	.00105	-.00953	-.00161	3.2366	-.00250	-.00127	.14243	.30480

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00578	.00837	.00003	-.00140	.00192	-.03887	-.00080	.00703	-.00552
Stddev	.00123	.00014	.00128	.00043	.00128	.00372	.00074	.00097	.00108
%RSD	21.356	1.6397	5126.6	31.049	66.443	9.5648	92.296	13.727	19.630

#1	.00665	.00827	-.00088	-.00170	.00283	-.03624	-.00132	.00635	-.00476
#2	.00491	.00846	.00093	-.00109	.00102	-.04150	-.00028	.00772	-.00629

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2845.1	46446.	5465.7
Stddev	6.0	139.	139.8
%RSD	.20930	.29862	2.5579

#1	2849.3	46348.	5564.6
#2	2840.8	46544.	5366.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00126	.05614	.01834	3.0244	.04378	.00110	.04370	18.002	.00217
Stddev	.00016	.00084	.00105	.0076	.00057	.00013	.00164	.210	.00005
%RSD	12.698	1.4950	5.7245	.25119	1.2978	11.464	3.7617	1.1675	2.1893

#1	.00114	.05673	.01909	3.0190	.04419	.00101	.04486	18.151	.00221
#2	.00137	.05554	.01760	3.0298	.04338	.00119	.04254	17.853	.00214

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01203	.00374	.00618	.02537	1.9322	.02713	24.113	.09626	.02288
Stddev	.00013	.00011	.00062	.00180	.0393	.00083	.003	.00032	.00024
%RSD	1.0771	2.9518	10.091	7.0817	2.0344	3.0427	.01386	.33059	1.0685

#1	.01194	.00367	.00662	.02410	1.9600	.02772	24.115	.09649	.02305
#2	.01213	.00382	.00574	.02664	1.9044	.02655	24.111	.09604	.02271

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9485	.02021	.21622	.01086	22.114	.00902	.06252	.81687	1.7481
Stddev	.0053	.00017	.00240	.00020	.025	.00075	.00405	.01776	.0380
%RSD	.26964	.83220	1.1112	1.8050	.11305	8.3523	6.4757	2.1740	2.1740

#1	1.9522	.02009	.21792	.01100	22.097	.00955	.05966	.80431	1.7212
#2	1.9447	.02033	.21452	.01072	22.132	.00848	.06539	.82943	1.7750

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04853	.07424	.02336	.02150	.04442	.01255	.01113	.01698	.00260
Stddev	.00067	.00012	.00023	.00046	.00138	.02565	.00069	.00080	.00385
%RSD	1.3906	.16165	1.0050	2.1225	3.1089	204.37	6.2449	4.7371	148.31

#1	.04805	.07415	.02319	.02183	.04345	.03069	.01064	.01641	.00532
#2	.04900	.07432	.02352	.02118	.04540	-.00559	.01162	.01755	-.00013

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2808.9	45987.	5468.6
Stddev	6.9	64.	41.1
%RSD	.24655	.13883	.75183

#1	2813.8	45942.	5439.6
#2	2804.0	46032.	5497.7

Sample Name: 69708-E-1-C MSD @50 Acquired: 6/1/2015 19:42:00 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 279424 200.7 FG (B Ca) 50x

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00109	.06770	.02498	3.5565	.05172	.00119	W .05250	20.756	.00258
Stddev	.00089	.00012	.00274	.0067	.00032	.00008	.00041	.235	.00007
%RSD	81.270	.16987	10.965	.18718	.61574	6.7040	.77492	1.1308	2.7370

#1	.00172	.06762	.02304	3.5518	.05194	.00113	.05278	20.922	.00263
#2	.00046	.06778	.02692	3.5612	.05149	.00125	.05221	20.590	.00253

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							.05000		
Low Limit							-.05000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01489	.00480	.00733	.03284	2.2652	.03318	28.235	.11278	.02760
Stddev	.00001	.00013	.00023	.00197	.1144	.00125	.067	.00138	.00093
%RSD	.03848	2.6950	3.0971	6.0080	5.0515	3.7715	.23594	1.2206	3.3854

#1	.01489	.00470	.00749	.03144	2.1843	.03230	28.282	.11375	.02826
#2	.01488	.00489	.00717	.03423	2.3462	.03407	28.188	.11181	.02694

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3026	.02323	.26834	.01209	26.096	.01312	.07916	.96972	2.0752
Stddev	.0107	.00012	.00298	.00181	.035	.00032	.00216	.02482	.0531
%RSD	.46323	.52139	1.1124	14.935	.13476	2.4750	2.7244	2.5593	2.5593

#1	2.3101	.02332	.27045	.01081	26.071	.01289	.07763	.98727	2.1128
#2	2.2951	.02315	.26623	.01337	26.120	.01335	.08068	.95217	2.0376

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06068	.08778	.02623	.02653	.05247	.04979	.01354	.02093	.00518
Stddev	.00023	.00001	.00313	.00054	.00158	.05363	.00001	.00113	.00091
%RSD	.37663	.00750	11.923	2.0511	3.0167	107.71	.05046	5.4050	17.539

#1	.06052	.08778	.02844	.02692	.05135	.08771	.01354	.02173	.00454
#2	.06084	.08779	.02402	.02615	.05359	.01187	.01353	.02013	.00583

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2795.8	45962.	5584.9
Stddev	8.1	25.	100.9
%RSD	.28997	.05406	1.8073

#1	2801.5	45979.	5513.5
#2	2790.0	45944.	5656.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04819	1.1000	.19384	2.8300	.09832	.04791	.00540	34.096	.05069
Stddev	.00007	.0018	.00279	.0003	.00011	.00031	.00031	.039	.00049
%RSD	.15095	.16624	1.4401	.00980	.11282	.65261	5.7199	.11331	.97483

#1	.04814	1.0987	.19581	2.8298	.09840	.04813	.00518	34.123	.05034
#2	.04824	1.1013	.19186	2.8302	.09824	.04769	.00561	34.069	.05104

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05146	.04098	.04762	1.1460	20.891	.10848	40.304	.12972	.04952
Stddev	.00011	.00045	.00041	.0051	.080	.00291	.009	.00038	.00003
%RSD	.20506	1.0868	.86991	.44847	.38521	2.6857	.02340	.29305	.05872

#1	.05154	.04130	.04791	1.1496	20.834	.11054	40.297	.12999	.04954
#2	.05139	.04067	.04733	1.1424	20.948	.10642	40.311	.12945	.04950

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.030	.05926	W 2.0690	.09928	19.789	.09325	.20800	5.5356	11.846
Stddev	.534	.00038	.0017	.00180	.020	.00211	.00574	.0312	.067
%RSD	2.6642	.63808	.08302	1.8103	.10124	2.2654	2.7598	.56347	.56347

#1	20.407	.05899	2.0678	.09801	19.774	.09474	.20394	5.5577	11.893
#2	19.652	.05952	2.0702	.10055	19.803	.09175	.21206	5.5136	11.799

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}	339.198 { 99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10691	.09667	.20748	.05102	.19352	.46479	.05338	.25168	.03608
Stddev	.00025	.00010	.00068	.00019	.00064	.00272	.00030	.00140	.00001
%RSD	.23152	.10060	.32962	.36274	.33044	.58551	.55683	.55785	.04135

#1	.10709	.09674	.20796	.05115	.19307	.46287	.05317	.25068	.03607
#2	.10674	.09661	.20699	.05089	.19398	.46672	.05359	.25267	.03609

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2705.7	44841.	5393.4
Stddev	9.3	345.	11.0
%RSD	.34412	.77001	.20480

#1	2712.3	45085.	5385.6
#2	2699.1	44597.	5401.2

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00397	50.270	-.00229	.00827	.00128	-.00006	W .94294	.03523	-.00039	-.00039	.00078
Stddev	.00054	.261	.00081	.00092	.00039	.00003	.00276	.00710	.00003	.00015	.00001
%RSD	13.530	.51863	35.203	11.183	30.598	42.833	.29310	20.167	6.7410	37.680	.88563

#1	.00359	50.454	-.00172	.00892	.00100	-.00004	.94098	.04025	-.00037	-.00029	.00078
#2	.00435	50.085	-.00286	.00761	.00155	-.00008	.94489	.03020	-.00041	-.00050	.00077

Check ?	None	Chk Pass	None	None	None	None	Chk Warn	None	None	None	None
Value							1.0000				
Range							-5.0000%				

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00291	47.895	.33981	.00738	.06797	-.00172	-.00103	247.33	.00271	-.00473	-.00148
Stddev	.00011	.306	.00081	.00012	.00310	.00001	.00009	.57	.00020	.00099	.00018
%RSD	3.8644	.63951	.23696	1.5740	4.5563	.78782	8.7193	.23001	7.4868	20.893	12.251

#1	-.00299	48.112	.33924	.00747	.06578	-.00173	-.00109	247.73	.00285	-.00543	-.00161
#2	-.00283	47.679	.34038	.00730	.07016	-.00171	-.00096	246.93	.00257	-.00403	-.00135

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.5324	-.01242	.00265	.00133	.00284	-.00218	.00048	5.1213	-.01168	.00387	10.367
Stddev	.0449	.00174	.00315	.01612	.03450	.00104	.00011	.0055	.00019	.00091	.007
%RSD	.99021	14.018	118.69	1215.1	1215.1	47.567	22.723	.10669	1.5934	23.590	.06910

#1	4.5007	-.01119	.00043	-.01007	-.02155	-.00144	.00040	5.1175	-.01154	.00322	10.362
#2	4.5642	-.01365	.00488	.01272	.02723	-.00291	.00056	5.1252	-.01181	.00451	10.373

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	5.0000										
Range	-5.0000%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00301	-.00118	-.15993
Stddev	.00048	.00063	.00164
%RSD	15.877	53.037	1.0279

#1	.00268	-.00074	-.16109
#2	.00335	-.00163	-.15877

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2769.0	44271.	5347.5
Stddev	47.5	84.	60.6
%RSD	1.7171	.19022	1.1331

#1	2735.4	44330.	5304.6
#2	2802.6	44211.	5390.3

Sample Name: CCV-3296664 Acquired: 6/1/2015 19:49:48 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51567	F .56181	.97049	.49254	.47025	.46950	-.00085	4.8455	.49742	.52159	F .42064	.47668
Stddev	.00099	.00564	.00162	.00248	.00046	.00039	.00075	.0026	.00037	.00125	.00171	.00168
%RSD	.19282	1.0048	.16724	.50372	.09816	.08383	88.520	.05257	.07493	.24023	.40647	.35345

#1	.51497	.56580	.96934	.49079	.47058	.46978	-.00032	4.8473	.49769	.52071	.42185	.47787
#2	.51637	.55781	.97163	.49430	.46993	.46922	-.00138	4.8437	.49716	.52248	.41943	.47549

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value		.50000									.50000	
Range		10.490%									-10.490%	

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3719	50.108	.98634	20.322	.53996	.50429	5.1917	.52399	1.0171	.98851	-.01414	.94360
Stddev	.0074	.018	.00249	.008	.00003	.00071	.0011	.00045	.0036	.00429	.00015	.00505
%RSD	.31268	.03575	.25273	.03722	.00643	.14013	.02063	.08637	.34963	.43418	1.0639	.53495

#1	2.3772	50.095	.98810	20.327	.53993	.50479	5.1925	.52431	1.0196	.99155	-.01425	.94717
#2	2.3667	50.121	.98457	20.316	.53998	.50379	5.1909	.52367	1.0146	.98548	-.01404	.94003

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.92816	4.9722	10.640	1.0101	.47308	-.00313	.52549	.97939	-.04988	.53999	F .58721	.46973
Stddev	.00443	.0206	.044	.0023	.00088	.00275	.00066	.00135	.00175	.00106	.00004	.00104
%RSD	.47746	.41352	.41352	.23038	.18580	87.729	.12634	.13735	3.5078	.19713	.00684	.22141

#1	.93130	4.9576	10.609	1.0117	.47370	-.00507	.52502	.98034	-.04864	.53924	.58724	.46900
#2	.92503	4.9867	10.672	1.0084	.47246	-.00119	.52596	.97844	-.05112	.54074	.58718	.47047

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Fail	Chk Pass				
Value											.50000	
Range											10.490%	

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2772.9	45019.	5368.1
Stddev	7.3	86.	27.3
%RSD	.26353	.19148	.50908

#1	2778.0	45080.	5348.8
#2	2767.7	44958.	5387.4

Sample Name: CCB Acquired: 6/1/2015 19:52:19 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	-.00006	.00071	.00447	.00020	-.00004	.00170	.00338	-.00026	.00002	.00027
Stddev	.00061	.00054	.00584	.00062	.00029	.00017	.00233	.00377	.00010	.00008	.00037
%RSD	696.18	964.66	824.57	13.814	141.29	376.62	137.18	111.50	38.939	371.52	137.59

#1	-.00034	-.00044	-.00342	.00404	.00000	-.00016	.00005	.00071	-.00019	.00008	.00053
#2	.00052	.00033	.00483	.00491	.00041	.00007	.00334	.00604	-.00033	-.00003	.00001

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	-.00039	.36931	.00338	-.00170	.00012	-.00009	.08573	.00050	-.00602	F -.00383
Stddev	.00019	.00062	.02992	.00075	.00654	.00005	.00011	.01252	.00009	.00246	.00249
%RSD	219.70	160.76	8.1013	22.285	385.02	38.626	122.40	14.608	17.754	40.882	64.988

#1	-.00022	-.00083	.34816	.00391	.00293	.00009	-.00001	.09458	.00044	-.00428	-.00560
#2	.00005	.00005	.39047	.00284	-.00632	.00016	-.00017	.07687	.00057	-.00776	-.00207

Check ?	Chk Pass	Chk Fail									
High Limit											.00300
Low Limit											-.00300

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01950	-.00264	F -.00621	.01405	.03006	-.00291	.00020	-.00038	-.00079	.00273	-.01974
Stddev	.00016	.00561	.00486	.01511	.03234	.00008	.00002	.00147	.00076	.00041	.02667
%RSD	.81716	212.17	78.274	107.59	107.59	2.8609	9.5723	390.02	96.171	15.014	135.13

#1	-.01939	-.00661	-.00965	.00336	.00719	-.00297	.00022	-.00142	-.00025	.00244	-.03859
#2	-.01961	.00132	-.00277	.02473	.05292	-.00285	.00019	.00066	-.00133	.00302	-.00088

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass							
High Limit			.00500								
Low Limit			-.00500								

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00057	-.00056	-.00641
Stddev	.00007	.00105	.00216
%RSD	12.994	185.84	33.718

#1	.00051	.00018	-.00488
#2	.00062	-.00130	-.00794

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2790.6	45897.	5434.5
Stddev	27.3	61.	9.9
%RSD	.97787	.13219	.18165

#1	2809.9	45854.	5441.4
#2	2771.4	45940.	5427.5

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01100	.11423	.01291	.10270	.01013	.00094	.10067	.20204	.00495	.01089	.00888	.01502
Stddev	.00041	.00099	.00469	.00051	.00008	.00006	.00108	.00329	.00009	.00018	.00003	.00018
%RSD	3.7472	.87076	36.329	.50056	.82273	6.2917	1.0772	1.6265	1.8308	1.6282	.34078	1.2219

#1	.01129	.11493	.01623	.10233	.01019	.00089	.09991	.19972	.00488	.01077	.00886	.01489
#2	.01071	.11353	.00960	.10306	.01007	.00098	.10144	.20437	.00501	.01102	.00890	.01515

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09842	3.4336	F .01524	.22134	.01153	.01952	1.1622	.04333	2.9773	.00710	-.02705	.00908
Stddev	.00014	.0065	.00121	.00577	.00002	.00052	.0110	.00021	.0104	.00156	.00272	.00073
%RSD	.14014	.18960	7.9381	2.6057	.14997	2.6433	.94797	.48759	.34921	21.988	10.073	8.0691

#1	.09832	3.4290	.01609	.22542	.01152	.01988	1.1544	.04348	2.9847	.00600	-.02898	.00857
#2	.09852	3.4382	.01438	.21726	.01154	.01915	1.1700	.04318	2.9700	.00820	-.02512	.00960

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .00923	.52596	1.1256	.10079	.00983	.01559	.00992	.01883	.04990	.01117	F .02610	F .00773
Stddev	.00036	.01260	.0270	.00034	.00008	.00150	.00020	.00036	.00894	.00086	.00035	.00091
%RSD	3.8560	2.3959	2.3959	.33727	.85535	9.6105	2.0548	1.8889	17.920	7.6667	1.3447	11.767

#1	.00948	.51705	1.1065	.10055	.00989	.01665	.01007	.01908	.05623	.01178	.02586	.00709
#2	.00898	.53487	1.1446	.10103	.00977	.01453	.00978	.01858	.04358	.01056	.02635	.00838

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Fail								
Value	.01500										.02000	.01500
Range	-30.000%										30.000%	-30.000%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2822.9	45339.	5396.2
Stddev	28.3	95.	50.4
%RSD	1.0029	.21060	.93353

#1	2802.8	45272.	5360.6
#2	2842.9	45407.	5431.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00032	.08303	-.00624	.16539	.04665	-.00002	.00366	12.818	-.00008
Stddev	.00031	.00047	.00293	.00157	.00037	.00014	.00013	.224	.00011
%RSD	95.669	.56673	46.900	.94803	.79839	659.02	3.5370	1.7499	136.43

#1	.00010	.08336	-.00831	.16650	.04691	-.00012	.00357	12.977	.00000
#2	.00054	.08270	-.00417	.16428	.04639	.00008	.00375	12.659	-.00015

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	.00091	.00066	.01042	4.0894	.00905	2.5212	.00036	.00641
Stddev	.00014	.00023	.00037	.00131	.0665	.00083	.0097	.00013	.00009
%RSD	125.20	25.497	56.040	12.576	1.6271	9.1704	.38609	34.600	1.4495

#1	.00021	.00107	.00040	.00950	4.0423	.00847	2.5280	.00045	.00648
#2	.00001	.00074	.00093	.01135	4.1364	.00964	2.5143	.00028	.00635

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.7247	.00194	-.00772	.00023	6.4282	-.00148	W -.00640	1.6824	3.6003
Stddev	.0552	.00040	.00187	.00014	.0790	.00126	.00049	.0113	.0242
%RSD	1.4820	20.474	24.265	60.432	1.2282	84.925	7.6660	.67116	.67116

#1	3.7637	.00166	-.00639	.00033	6.4840	-.00237	-.00605	1.6744	3.5832
#2	3.6856	.00222	-.00904	.00013	6.3724	-.00059	-.00674	1.6904	3.6174

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							5.0000		
Low Limit							-.00500		

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00160	.11345	.00046	-.00062	.00022	-.04602	.00155	.00100	-.00413
Stddev	.00011	.00155	.00057	.00037	.00268	.03459	.00072	.00018	.00087
%RSD	6.6325	1.3670	123.58	59.211	1205.8	75.169	46.602	17.558	21.163

#1	.00152	.11455	.00006	-.00036	-.00167	-.02156	.00104	.00113	-.00351
#2	.00167	.11235	.00087	-.00088	.00212	-.07048	.00206	.00088	-.00475

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2836.6	46366.	5676.9
Stddev	2.6	37.	143.7
%RSD	.09252	.07931	2.5314

#1	2834.7	46392.	5575.3
#2	2838.5	46340.	5778.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00050	.00710	-.00163	.01519	.01809	-.00008	.00219	8.0381	-.00043
Stddev	.00039	.00053	.00030	.00008	.00008	.00001	.00138	.0537	.00021
%RSD	77.232	7.4282	18.416	.52081	.45710	9.9481	63.266	.66811	48.406

#1	.00077	.00748	-.00141	.01513	.01815	-.00008	.00316	8.0761	-.00029
#2	.00023	.00673	-.00184	.01524	.01803	-.00009	.00121	8.0002	-.00058

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.00046	.00055	.03119	1.4358	.00638	5.2250	.00307	-.00056
Stddev	.00030	.00025	.00055	.00252	.0158	.00333	.0023	.00011	.00021
%RSD	802.45	54.322	99.593	8.0928	1.1019	52.258	.04344	3.6618	36.984

#1	-.00017	.00028	.00016	.03297	1.4246	.00874	5.2266	.00299	-.00071
#2	.00025	.00063	.00094	.02940	1.4470	.00402	5.2234	.00315	-.00042

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.8947	.00204	-.00439	-.00148	8.4482	-.00568	W -.00617	.84325	1.8045
Stddev	.0065	.00029	.00009	.00098	.0090	.00304	.00185	.01076	.0230
%RSD	.22533	13.998	2.0499	66.028	.10676	53.450	29.987	1.2763	1.2763

#1	2.8993	.00184	-.00446	-.00218	8.4546	-.00782	-.00748	.83564	1.7883
#2	2.8901	.00224	-.00433	-.00079	8.4419	-.00353	-.00486	.85086	1.8208

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							5.0000		
Low Limit							-.00500		

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00216	.03162	-.00032	-.00052	-.00049	.01959	-.00048	.00134	-.00354
Stddev	.00100	.00003	.00164	.00031	.00317	.04223	.00017	.00050	.00053
%RSD	46.353	.08127	505.08	60.514	652.09	215.61	36.311	36.992	14.940

#1	.00287	.03160	.00083	-.00074	.00175	-.01028	-.00061	.00169	-.00391
#2	.00146	.03164	-.00148	-.00030	-.00272	.04945	-.00036	.00099	-.00317

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2824.6	46119.	5480.4
Stddev	5.2	15.	39.8
%RSD	.18530	.03264	.72700

#1	2820.9	46130.	5452.2
#2	2828.3	46109.	5508.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00121	.00099	-.00379	2.6651	.00170	.00000	-.00020	18.171	-.00040
Stddev	.00016	.00079	.00434	.0085	.00018	.00011	.00125	.166	.00014
%RSD	13.356	79.004	114.44	.31973	10.361	5188.0	618.64	.91206	36.040

#1	.00110	.00044	-.00072	2.6591	.00157	.00008	-.00108	18.288	-.00050
#2	.00132	.00155	-.00686	2.6711	.00182	-.00007	.00068	18.054	-.00030

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00059	.00037	.00039	.00597	.70125	.00591	16.896	.06402	.00017
Stddev	.00021	.00002	.00039	.00198	.00756	.00097	.003	.00071	.00027
%RSD	35.199	4.2557	99.958	33.115	1.0778	16.372	.02060	1.1076	160.07

#1	.00074	.00036	.00011	.00736	.69591	.00660	16.898	.06452	.00036
#2	.00045	.00038	.00067	.00457	.70660	.00523	16.893	.06352	-.00002

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.55109	.00454	-.00627	-.00019	16.948	-.00104	.00540	.48341	1.0345
Stddev	.01314	.00025	.00605	.00065	.066	.00067	.00058	.00219	.0047
%RSD	2.3844	5.5191	96.423	336.98	.38684	64.621	10.701	.45271	.45271

#1	.56038	.00472	-.00200	.00027	16.995	-.00056	.00581	.48496	1.0378
#2	.54180	.00437	-.01055	-.00066	16.902	-.00151	.00499	.48186	1.0312

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00487	.05984	-.00084	-.00107	.00085	-.02988	-.00035	.00162	-.00493
Stddev	.00023	.00018	.00112	.00000	.00174	.01506	.00000	.00045	.00094
%RSD	4.7500	.29277	132.78	.23471	203.99	50.420	1.3319	27.836	19.029

#1	.00471	.05997	-.00005	-.00107	.00208	-.01922	-.00035	.00194	-.00427
#2	.00503	.05972	-.00163	-.00107	-.00038	-.04053	-.00034	.00130	-.00560

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2826.0	46078.	5527.0
Stddev	2.8	130.	59.5
%RSD	.09938	.28267	1.0760

#1	2824.1	45986.	5484.9
#2	2828.0	46170.	5569.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.06429	-.00056	.44791	.04420	-.00005	-.00087	25.763	-.00017
Stddev	.00018	.00078	.00221	.00371	.00003	.00015	.00130	.046	.00005
%RSD	1222.3	1.2149	393.37	.82795	.06185	289.22	148.67	.18008	28.437

#1	-.00011	.06374	-.00212	.44528	.04422	-.00016	-.00179	25.796	-.00013
#2	.00014	.06485	.00100	.45053	.04418	.00005	.00004	25.730	-.00020

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00029	.00083	.00152	.11244	2.0299	.05988	6.2308	.01681	.03464
Stddev	.00048	.00014	.00007	.00178	.0145	.00009	.0307	.00016	.00012
%RSD	165.60	17.250	4.8153	1.5849	.71292	.14655	.49246	.95556	.33688

#1	.00063	.00073	.00147	.11370	2.0401	.05981	6.2525	.01692	.03472
#2	-.00005	.00093	.00157	.11118	2.0197	.05994	6.2091	.01669	.03456

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.1327	.00355	-.00005	.00106	23.640	.00027	-.00459	.34358	.73526
Stddev	.0305	.00003	.00134	.00250	.125	.00144	.00412	.00333	.00714
%RSD	.97490	.73169	2696.2	236.28	.52937	527.70	89.654	.97041	.97041

#1	3.1111	.00357	-.00099	-.00071	23.551	-.00075	-.00168	.34594	.74030
#2	3.1543	.00354	.00090	.00283	23.728	.00129	-.00751	.34122	.73021

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00265	.08023	-.00137	.00095	-.00324	-.02843	.00066	.00045	-.00549
Stddev	.00007	.00049	.00056	.00026	.00077	.00690	.00008	.00043	.00109
%RSD	2.5639	.61390	40.720	27.543	23.682	24.280	11.991	97.092	19.868

#1	.00270	.07988	-.00176	.00114	-.00270	-.02355	.00060	.00075	-.00472
#2	.00260	.08057	-.00097	.00077	-.00378	-.03331	.00072	.00014	-.00627

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2854.8	46523.	5598.8
Stddev	8.9	5.	36.1
%RSD	.31096	.01085	.64459

#1	2848.5	46519.	5573.3
#2	2861.1	46526.	5624.4

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00026	8.9868	-.00136	.11676	.01264	.00305	.00284	107.68	.00168
Stddev	.00058	.0239	.00235	.00082	.00005	.00003	.00060	.57	.00019
%RSD	218.24	.26635	173.27	.70308	.37705	1.0966	21.230	.53035	11.518

#1	.00067	9.0037	.00031	.11734	.01260	.00308	.00241	107.27	.00154
#2	-.00014	8.9699	-.00302	.11618	.01267	.00303	.00327	108.08	.00182

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.11437	.00231	.07260	2.5700	1.3102	.10677	42.323	1.9945	-.00316
Stddev	.00032	.00009	.00048	.0123	.0043	.00155	.062	.0026	.00007
%RSD	.28247	3.8521	.66436	.47791	.32728	1.4497	.14740	.12798	2.1678

#1	.11414	.00225	.07295	2.5613	1.3072	.10786	42.367	1.9927	-.00321
#2	.11460	.00238	.07226	2.5787	1.3132	.10567	42.279	1.9963	-.00311

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.1164	.21261	.00273	.00585	161.64	.00125	-.00302	1.4509	3.1050
Stddev	.0449	.00087	.00552	.00102	.08	.00004	.00387	.0090	.0192
%RSD	.73479	.40698	202.44	17.359	.05217	2.9333	128.23	.61842	.61842

#1	6.0847	.21323	.00663	.00657	161.70	.00128	-.00028	1.4573	3.1186
#2	6.1482	.21200	-.00118	.00513	161.58	.00123	-.00576	1.4446	3.0914

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00345	.17096	.00163	-.00112	-.00934	W -.05142	-.00072	.41789	-.00776
Stddev	.00091	.00100	.00013	.00000	.00125	.00972	.00000	.00206	.00163
%RSD	26.368	.58292	7.8648	.34397	13.331	18.901	.04169	.49368	21.023

#1	.00410	.17025	.00172	-.00112	-.00846	-.04455	-.00072	.41643	-.00891
#2	.00281	.17166	.00154	-.00112	-.01022	-.05829	-.00072	.41935	-.00661

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2846.3	46468.	5634.9
Stddev	10.7	31.	20.0
%RSD	.37604	.06697	.35445

#1	2838.8	46490.	5620.8
#2	2853.9	46446.	5649.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00058	.00259	.00120	.00204	.00052	.00006	.00045	.02370	-.00036
Stddev	.00023	.00018	.00082	.00019	.00012	.00012	.00186	.01754	.00009
%RSD	40.583	6.9573	68.389	9.1680	23.579	222.04	414.30	74.019	25.326

#1	.00074	.00272	.00178	.00217	.00043	-.00003	.00177	.01130	-.00029
#2	.00041	.00247	.00062	.00191	.00060	.00014	-.00087	.03611	-.00042

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	.00006	.00019	.00527	.30814	.00416	.00874	.00028	-.00051
Stddev	.00048	.00010	.00074	.00076	.00580	.00059	.00180	.00007	.00005
%RSD	683.61	171.68	395.46	14.467	1.8817	14.296	20.566	24.277	10.145

#1	.00027	-.00001	.00071	.00581	.30404	.00374	.00747	.00023	-.00054
#2	-.00041	.00012	-.00033	.00473	.31224	.00458	.01001	.00033	-.00047

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08457	.00047	-.00691	-.00197	-.00563	-.00167	W -.00678	.03964	.08482
Stddev	.00445	.00027	.00131	.00185	.00965	.00201	.00808	.00656	.01403
%RSD	5.2626	58.057	18.917	93.878	171.36	120.36	119.25	16.538	16.538

#1	.08142	.00027	-.00784	-.00066	.00119	-.00025	-.00106	.04427	.09474
#2	.08772	.00066	-.00599	-.00328	-.01246	-.00310	-.01249	.03500	.07490

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							5.0000		
Low Limit							-.00500		

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00188	.00014	.00021	-.00064	.00068	-.03442	-.00059	.00098	-.00736
Stddev	.00055	.00024	.00059	.00017	.00053	.00229	.00066	.00023	.00047
%RSD	29.368	170.94	283.89	26.898	77.433	6.6594	110.77	23.533	6.3836

#1	.00149	.00031	.00063	-.00076	.00106	-.03280	-.00106	.00114	-.00769
#2	.00227	-.00003	-.00021	-.00052	.00031	-.03604	-.00013	.00082	-.00703

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2836.0	46244.	5605.2
Stddev	1.5	54.	14.7
%RSD	.05128	.11650	.26150

#1	2835.0	46206.	5594.8
#2	2837.1	46282.	5615.6

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00348	49.492	-.00324	.00189	.00086	-.00007	W .94045	.03118	-.00006	-.00008	.00061
Stddev	.00117	1.097	.00288	.00001	.00043	.00000	.00487	.00587	.00023	.00036	.00016
%RSD	33.699	2.2169	88.645	.31748	49.875	1.1159	.51733	18.818	384.60	427.90	26.379

#1	.00431	50.268	-.00528	.00190	.00055	-.00007	.94389	.03533	.00010	.00017	.00049
#2	.00265	48.716	-.00121	.00189	.00116	-.00007	.93701	.02703	-.00022	-.00034	.00072

Check ?	None	Chk Pass	None	None	None	None	Chk Warn	None	None	None	None
Value							1.0000				
Range							-5.0000%				

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00287	46.719	.34723	.00552	.06656	-.00155	-.00123	243.64	.00282	-.00409	-.00174
Stddev	.00021	.538	.05254	.00040	.00621	.00005	.00021	4.46	.00001	.00316	.00114
%RSD	7.3555	1.1526	15.132	7.2768	9.3236	3.5272	17.164	1.8317	.51292	77.464	65.642

#1	-.00302	47.100	.38438	.00524	.06217	-.00158	-.00137	246.80	.00281	-.00632	-.00255
#2	-.00272	46.339	.31007	.00580	.07095	-.00151	-.00108	240.49	.00283	-.00185	-.00093

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.5769	-.01122	.00436	-.01966	-.04206	-.00373	.00048	5.0388	-.01129	.00294	10.189
Stddev	.0229	.00075	.00024	.01284	.02748	.00034	.00006	.0068	.00089	.00255	.006
%RSD	.49979	6.6625	5.6040	65.339	65.339	9.0469	11.841	.13461	7.8632	86.802	.05934

#1	4.5931	-.01069	.00418	-.02874	-.06150	-.00350	.00052	5.0436	-.01066	.00475	10.184
#2	4.5608	-.01175	.00453	-.01057	-.02263	-.00397	.00044	5.0340	-.01192	.00114	10.193

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	5.0000										
Range	-5.0000%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00176	-.00075	-.15426
Stddev	.00015	.00109	.00183
%RSD	8.8080	145.59	1.1862

#1	.00186	-.00152	-.15555
#2	.00165	.00002	-.15296

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2812.7	45407.	5524.2
Stddev	1.3	87.	141.9
%RSD	.04517	.19104	2.5689

#1	2813.6	45346.	5423.9
#2	2811.8	45468.	5624.6

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50495	.54699	.95414	.47778	.46274	.46095	.00021	4.7467	.48661	.50715	F .42045	.46432
Stddev	.00036	.00001	.01168	.00136	.01066	.01098	.00071	.0997	.00084	.00223	.00139	.00241
%RSD	.07053	.00232	1.2240	.28422	2.3047	2.3811	340.06	2.1010	.17361	.43892	.33048	.51858

#1	.50470	.54699	.96239	.47682	.45520	.45319	.00071	4.6762	.48601	.50873	.42143	.46262
#2	.50521	.54698	.94588	.47874	.47028	.46871	-.00029	4.8173	.48721	.50558	.41946	.46602

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass					
Value											.50000	
Range											-10.490%	

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3413	49.500	.97609	19.804	.52722	.48912	5.0929	.50774	.98700	.95765	-0.1218	.91542
Stddev	.0566	1.144	.02386	.032	.00118	.00201	.1103	.00378	.00038	.00265	.00003	.00647
%RSD	2.4173	2.3106	2.4442	.16263	.22413	.41056	2.1660	.74493	.03853	.27646	.25885	.70709

#1	2.3013	48.691	.95922	19.782	.52805	.49054	5.0149	.51042	.98727	.95952	-.01215	.91999
#2	2.3814	50.309	.99295	19.827	.52638	.48770	5.1709	.50507	.98673	.95577	-.01220	.91084

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .89078	4.8961	10.478	.98125	.46593	.00042	.51278	.95160	-.04923	.52624	F .57121	.46266
Stddev	.00735	.0949	.203	.00183	.01085	.00177	.00006	.00104	.04451	.00014	.00299	.01283
%RSD	.82551	1.9383	1.9383	.18629	2.3276	420.64	.01082	.10907	90.415	.02656	.52401	2.7724

#1	.89598	4.8290	10.334	.98255	.45826	.00168	.51282	.95233	-.08070	.52614	.57332	.45359
#2	.88558	4.9632	10.621	.97996	.47360	-.00083	.51274	.95086	-.01776	.52634	.56909	.47173

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Fail	Chk Pass
Value	1.0000										.50000	
Range	-10.490%										10.490%	

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2847.9	46304.	5508.9
Stddev	1.5	36.	119.2
%RSD	.05164	.07737	2.1638

#1	2849.0	46279.	5593.2
#2	2846.9	46330.	5424.6

Sample Name: CCB Acquired: 6/1/2015 20:17:55 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00084	.00011	.00010	.00103	.00062	.00004	.00139	.00327	-.00026	.00007	.00025
Stddev	.00027	.00191	.00142	.00014	.00006	.00003	.00032	.00003	.00010	.00012	.00015
%RSD	32.115	1694.7	1492.4	13.876	9.2172	88.383	23.331	.97809	37.817	171.92	59.013

#1	.00102	-.00124	.00110	.00093	.00058	.00006	.00116	.00329	-.00033	.00016	.00036
#2	.00065	.00146	-.00091	.00114	.00066	.00001	.00162	.00325	-.00019	-.00002	.00015

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00034	.00286	.30919	.00382	.01186	.00007	-.00018	.08458	.00001	-.00856	F -.00300
Stddev	.00004	.00304	.04304	.00029	.00018	.00003	.00033	.00467	.00120	.00071	.00192
%RSD	12.881	105.99	13.921	7.5337	1.5476	44.700	183.19	5.5226	14212.	8.2480	64.087

#1	.00031	.00501	.33963	.00362	.01173	.00010	-.00041	.08788	.00086	-.00906	-.00436
#2	.00037	.00072	.27875	.00403	.01199	.00005	.00005	.08127	-.00084	-.00806	-.00164

Check ?	Chk Pass	Chk Fail									
High Limit											.00300
Low Limit											-.00300

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.02252	-.00131	F -.00706	.01893	.04051	-.00072	.00024	-.00198	-.00055	.00223	-.02687
Stddev	.00313	.00176	.00347	.00061	.00130	.00077	.00006	.00349	.00007	.00057	.02079
%RSD	13.892	133.66	49.208	3.1993	3.1993	107.49	24.142	176.36	12.665	25.418	77.356

#1	-.02031	-.00007	-.00951	.01936	.04143	-.00017	.00028	-.00444	-.00050	.00183	-.01217
#2	-.02473	-.00256	-.00460	.01850	.03960	-.00126	.00020	.00049	-.00060	.00263	-.04157

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass							
High Limit			.00500								
Low Limit			-.00500								

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	-.00069	-.00056	-.00603
Stddev	.00061	.00030	.00188
%RSD	88.627	52.773	31.166

#1	-.00112	-.00077	-.00470
#2	-.00026	-.00035	-.00736

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2874.7	46731.	5523.0
Stddev	.5	73.	143.3
%RSD	.01685	.15592	2.5943

#1	2874.4	46680.	5421.7
#2	2875.1	46783.	5624.4

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01001	.11113	.01127	.09613	.00974	.00091	.09972	.20506	.00486	.01081	.00896	.01385
Stddev	.00064	.00003	.00158	.00060	.00023	.00006	.00175	.00697	.00008	.00021	.00030	.00055
%RSD	6.4399	.03030	13.999	.62481	2.3621	6.1423	1.7506	3.3991	1.7130	1.9417	3.3273	3.9699

#1	.01047	.11115	.01016	.09655	.00990	.00087	.10095	.20998	.00492	.01096	.00875	.01424
#2	.00955	.11110	.01239	.09570	.00957	.00095	.09849	.20013	.00481	.01066	.00917	.01346

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09756	3.3812	F .01361	.21288	.01112	.01935	1.1141	.04170	2.9065	.00866	-.01796	F .00679
Stddev	.00228	.1281	.00106	.00126	.00000	.00035	.0262	.00023	.0001	.00331	.00308	.00037
%RSD	2.3363	3.7870	7.7586	.59402	.01849	1.8311	2.3490	.55214	.00418	38.287	17.144	5.3992

#1	.09918	3.4718	.01436	.21378	.01112	.01960	1.1326	.04154	2.9066	.00631	-.02013	.00705
#2	.09595	3.2907	.01287	.21199	.01112	.01910	1.0956	.04186	2.9064	.01100	-.01578	.00653

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Fail						
Value			.01000									.01000
Range			30.000%									-30.000%

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .00626	.49788	1.0655	.09778	.00986	.01368	.01011	.01852	.05801	.01081	.02580	F .00770
Stddev	.00083	.01430	.0306	.00178	.00045	.00077	.00010	.00126	.00266	.00063	.00057	.00121
%RSD	13.252	2.8718	2.8718	1.8221	4.5623	5.6427	1.0370	6.8155	4.5894	5.8344	2.2127	15.724

#1	.00685	.50799	1.0871	.09652	.01018	.01313	.01018	.01941	.05613	.01125	.02621	.00684
#2	.00567	.48777	1.0438	.09904	.00954	.01422	.01004	.01763	.05989	.01036	.02540	.00856

Check ?	Chk Fail	Chk Pass	Chk Fail									
Value	.01500											.01500
Range	-30.000%											-30.000%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2899.7	47156.	5619.8
Stddev	.7	198.	198.2
%RSD	.02510	.42019	3.5258

#1	2900.3	47296.	5479.7
#2	2899.2	47015.	5759.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00129	.03148	.01328	W 57.032	.01892	.00014	.00267	370.36	-.00007
Stddev	.00006	.00008	.00016	.275	.00007	.00001	.00144	3.24	.00002
%RSD	4.2687	.25727	1.2197	.48215	.38824	4.8921	53.797	.87530	33.740

#1	.00125	.03154	.01316	56.838	.01887	.00015	.00166	372.65	-.00005
#2	.00133	.03143	.01339	57.227	.01897	.00014	.00369	368.07	-.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.01000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00754	.00123	.00227	.01553	9.3126	.06800	366.31	1.3025	.02722
Stddev	.00019	.00015	.00001	.00017	.0363	.00010	2.80	.0097	.00031
%RSD	2.5490	12.265	.62214	1.0650	.38985	.14538	.76440	.74102	1.1521

#1	.00740	.00112	.00228	.01542	9.2869	.06793	364.33	1.2957	.02744
#2	.00768	.00134	.00226	.01565	9.3383	.06807	368.29	1.3093	.02700

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.158	.04646	.04617	.00275	F 373.30	.00853	.21361	10.062	21.533
Stddev	.001	.00062	.00056	.00239	1.88	.00285	.00080	.061	.130
%RSD	.01245	1.3261	1.2042	87.170	.50357	33.452	.37403	.60230	.60230

#1	10.157	.04602	.04578	.00444	371.97	.01054	.21304	10.019	21.442
#2	10.159	.04690	.04656	.00105	374.63	.00651	.21417	10.105	21.625

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00314	1.2271	.00161	-.00082	-.00595	F -.10593	.00264	.03375	-.00652
Stddev	.00255	.0032	.00039	.00033	.00044	.00307	.00146	.00224	.00188
%RSD	81.283	.26515	24.536	40.205	7.3682	2.9011	55.260	6.6284	28.781

#1	.00495	1.2248	.00188	-.00106	-.00564	-.10811	.00161	.03217	-.00784
#2	.00134	1.2294	.00133	-.00059	-.00626	-.10376	.00367	.03534	-.00519

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass				
High Limit						50.000			
Low Limit						-.10000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2643.9	43914.	5465.6
Stddev	15.1	69.	77.9
%RSD	.57283	.15672	1.4253

#1	2633.2	43963.	5410.5
#2	2654.6	43865.	5520.7

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00395	48.209	.00035	.07500	.00104	.00007	W .90870	.04079	-.00036	.00010	.00059
Stddev	.00002	.061	.00027	.00773	.00046	.00001	.01418	.00387	.00018	.00008	.00001
%RSD	.62856	.12626	78.613	10.306	43.673	11.172	1.5608	9.4887	48.174	82.768	2.3237

#1	.00394	48.166	.00015	.08046	.00072	.00008	.91873	.03805	-.00049	.00004	.00058
#2	.00397	48.252	.00054	.06953	.00136	.00006	.89867	.04353	-.00024	.00016	.00060

Check ?	None	Chk Pass	None	None	None	None	Chk Warn	None	None	None	None
Value							1.0000				
Range							-5.0000%				

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00244	46.067	.31900	.00337	.09814	-.00133	-.00107	238.27	.00241	-.00439	-.00079
Stddev	.00059	.093	.00004	.00115	.03919	.00035	.00028	.48	.00008	.00605	.00070
%RSD	24.145	.20214	.01340	34.006	39.935	26.577	26.058	.20080	3.3094	137.92	88.942

#1	-.00202	46.001	.31897	.00418	.12586	-.00108	-.00088	237.93	.00236	-.00011	-.00029
#2	-.00286	46.133	.31903	.00256	.07043	-.00158	-.00127	238.61	.00247	-.00867	-.00129

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 4.3711	-.01077	-.00060	-.00808	-.01728	-.00340	.00053	4.9348	-.01124	.00409	10.033
Stddev	.0683	.00070	.00103	.00104	.00222	.00021	.00002	.0050	.00044	.00036	.023
%RSD	1.5624	6.5327	170.96	12.862	12.862	6.0469	4.4627	.10055	3.8773	8.6740	.22503

#1	4.4194	-.01127	.00013	-.00734	-.01571	-.00355	.00055	4.9383	-.01155	.00434	10.017
#2	4.3228	-.01027	-.00133	-.00881	-.01886	-.00326	.00052	4.9313	-.01093	.00384	10.049

Check ?	Chk Fail	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	5.0000										
Range	-10.490%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00233	-.00167	-.15114
Stddev	.00031	.00076	.00244
%RSD	13.382	45.343	1.6145

#1	.00255	-.00221	-.15286
#2	.00211	-.00114	-.14941

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2839.6	45920.	5590.1
Stddev	17.1	170.	12.1
%RSD	.60317	.37098	.21731

#1	2851.7	45799.	5581.6
#2	2827.5	46040.	5598.7

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51895	F .56146	.97518	.53496	.47856	.47660	.00214	4.8713	.50085	.51416	F .41362	.47688
Stddev	.00158	.00348	.00851	.00904	.00062	.00002	.00283	.0056	.00320	.00919	.00795	.00006
%RSD	.30419	.61929	.87314	1.6890	.12971	.00375	132.17	.11584	.63916	1.7878	1.9220	.01253

#1	.52007	.56392	.98120	.54135	.47900	.47661	.00414	4.8673	.50312	.52066	.41924	.47684
#2	.51783	.55901	.96916	.52857	.47812	.47659	.00014	4.8753	.49859	.50766	.40800	.47692

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value		.50000									.50000	
Range		10.490%									-10.490%	

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3877	50.940	1.0064	20.299	.54333	.49770	5.2226	.51652	1.0088	.97498	-.00713	.93296
Stddev	.0084	.053	.0011	.065	.00067	.00724	.0086	.00841	.0130	.01445	.00396	.01826
%RSD	.35267	.10424	.11375	.31834	.12267	1.4554	.16537	1.6280	1.2910	1.4824	55.554	1.9577

#1	2.3818	50.977	1.0056	20.345	.54380	.50282	5.2287	.52246	1.0180	.98520	-.00992	.94588
#2	2.3937	50.902	1.0072	20.254	.54286	.49258	5.2165	.51057	.99959	.96476	-.00433	.92004

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.91493	4.9786	10.654	.99254	.48066	-.00190	.52674	.96412	-.04382	.54428	F .58476	.46628
Stddev	.01823	.0055	.012	.01084	.00123	.00042	.00071	.01860	.01820	.00011	.00759	.00221
%RSD	1.9928	.11109	.11109	1.0925	.25670	22.264	.13463	1.9287	41.542	.02075	1.2985	.47308

#1	.92783	4.9747	10.646	1.0002	.48153	-.00220	.52724	.97727	-.03095	.54420	.57940	.46472
#2	.90204	4.9825	10.663	.98487	.47979	-.00160	.52623	.95097	-.05669	.54436	.59013	.46784

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Fail	Chk Pass				
Value											.50000	
Range											10.490%	

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2760.1	44779.	5309.7
Stddev	.8	87.	15.0
%RSD	.02857	.19538	.28228

#1	2759.5	44717.	5299.1
#2	2760.6	44841.	5320.3

Sample Name: CCB Acquired: 6/1/2015 20:31:14 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00051	-.00056	-.00465	.03188	.00087	.00002	.00093	.00153	-.00046	.00002	.00014
Stddev	.00016	.00026	.00090	.00152	.00036	.00000	.00133	.00159	.00060	.00008	.00004
%RSD	30.720	47.225	19.262	4.7726	41.606	17.426	143.28	103.95	129.26	494.19	30.770

#1	.00040	-.00037	-.00529	.03296	.00061	.00002	.00187	.00041	-.00004	-.00004	.00017
#2	.00062	-.00074	-.00402	.03080	.00113	.00001	-.00001	.00266	-.00089	.00007	.00011

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	.00191	.33120	.00361	.00317	.00019	-.00020	.06808	.00026	F -.01043	-.00293
Stddev	.00007	.00280	.09323	.00284	.00727	.00005	.00018	.00347	.00006	.00133	.00072
%RSD	184.99	146.96	28.151	78.869	229.39	26.702	93.981	5.0902	22.225	12.736	24.491

#1	.00001	.00389	.39712	.00562	-.00197	.00015	-.00033	.06563	.00030	-.01137	-.00243
#2	-.00008	-.00007	.26527	.00160	.00831	.00022	-.00007	.07053	.00022	-.00949	-.00344

Check ?	Chk Pass	Chk Fail	Chk Pass								
High Limit										.01000	
Low Limit										-.01000	

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01793	-.00166	F -.00788	.01789	.03828	-.00055	.00015	-.00008	-.00071	.00401	-.01767
Stddev	.00448	.00055	.00227	.00581	.01242	.00087	.00003	.00062	.00093	.00077	.00749
%RSD	24.997	33.086	28.857	32.453	32.453	159.55	20.959	729.11	130.96	19.292	42.400

#1	-.01476	-.00127	-.00627	.01378	.02949	.00007	.00013	-.00052	-.00005	.00347	-.01237
#2	-.02110	-.00205	-.00949	.02199	.04706	-.00116	.00018	.00035	-.00136	.00456	-.02297

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass							
High Limit			.00500								
Low Limit			-.00500								

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	-.00045	-.00029	-.00594
Stddev	.00037	.00064	.00180
%RSD	84.068	221.74	30.287

#1	-.00071	.00016	-.00467
#2	-.00018	-.00074	-.00721

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2801.5	45347.	5497.6
Stddev	6.7	107.	3.2
%RSD	.23867	.23694	.05908

#1	2806.2	45423.	5499.9
#2	2796.8	45271.	5495.3

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01098	.11417	.01619	.12689	.01019	.00087	.09856	.20177	.00473	.01080	.00874	.01429
Stddev	.00146	.00015	.00053	.00034	.00014	.00016	.00168	.00400	.00001	.00031	.00020	.00015
%RSD	13.289	.13219	3.2811	.26421	1.3891	18.759	1.7041	1.9817	.12448	2.9167	2.2456	1.0720

#1	.00995	.11406	.01581	.12712	.01029	.00098	.09975	.19894	.00472	.01102	.00888	.01440
#2	.01201	.11427	.01656	.12665	.01009	.00075	.09737	.20459	.00473	.01058	.00861	.01418

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09798	3.3947	F .01467	.20963	.01146	.01953	1.1158	.04309	2.9623	.00816	-.01428	.00750
Stddev	.00000	.0364	.00288	.00102	.00014	.00025	.0292	.00056	.0017	.00056	.00022	.00214
%RSD	.00033	1.0719	19.660	.48710	1.2098	1.2936	2.6182	1.2958	.05613	6.8003	1.5250	28.541

#1	.09798	3.4204	.01263	.21035	.01156	.01935	1.0951	.04269	2.9634	.00777	-.01413	.00599
#2	.09798	3.3690	.01671	.20891	.01136	.01971	1.1364	.04348	2.9611	.00855	-.01444	.00902

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .00737	.49395	1.0570	.10045	.00971	.01757	.01008	.01608	F .02215	.01130	.02541	F .00841
Stddev	.00128	.02384	.0510	.00009	.00009	.00243	.00007	.00104	.00091	.00070	.00177	.00116
%RSD	17.416	4.8261	4.8261	.09174	.93966	13.834	.74167	6.4511	4.1072	6.1777	6.9510	13.734

#1	.00827	.47709	1.0210	.10052	.00977	.01585	.01003	.01535	.02150	.01179	.02666	.00759
#2	.00646	.51080	1.0931	.10038	.00964	.01929	.01013	.01681	.02279	.01081	.02416	.00923

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail						
Value	.01500								.06000			.01500
Range	-30.000%								-30.000%			-30.000%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2831.7	46014.	5482.1
Stddev	8.2	292.	4.6
%RSD	.28959	.63555	.08351

#1	2825.9	45807.	5478.9
#2	2837.5	46221.	5485.4

ICP Data Review Checklist

TALS BATCH NUMBER: <u>279916, 19, 19, 20, 21</u>	Earliest due date: <u>6/3/15</u>
Run Date: <u>6/1/15</u>	Analyst: <u>Chris Rhoades</u>
Instrument: <u>MET_025</u>	
QC programs/Methods Run: <u>6010B, 6010C, 200.7</u>	

Review Items	Yes	No	N/A	2nd Level
A. Preparation/Matrix QC				
1. LCS done per prep batch and within QC limits?	✓			/
2. Method blank done per prep batch and < 1/2 RL or CRDL (CLP) or < 2.2x MDL 200.7?	✓			/
3. MS run at required frequency and within limits?	✓			/
4. MSD or DU run at required frequency and RPD within SOP limits?	✓			/
5. Serial dilution done per prep batch (or per SDG for CLP)?	✓			/
6. Post digest spike analyzed if required (CLP, DOD & AFCEE only)? NCM Whether needed for DODV3, DODV4, DODV5, AFCEE 4.0, 6010C?	✓			/
B. Calibration/Instrument Run QC				
1. ICV/CCV analyzed at appropriate frequency and within control limits ? (6010B: CLP = 90 - 110%; 200.7: ICV = 95 - 105%, CCV 90-110%) If not in control, was the ICV or CCV reanalyzed twice to show return to control as per NELAP?	✓			/
2. ICB/CCB analyzed at appropriate frequency and < 1/2 RL or < 2X MDL (DOD V3, AFCEE 4.0)? Was it less than the LODV (DODV4 & DODV5)	✓			/
3. High Standard (HIGH) reanalyzed before samples and recovered within QC limits? (+-5%)	✓			/
4. RL STD run and recovered within QC limits ? (± 50% for non-CLP, ± 20% for DoD V3 / DoD V4 / DoD V5 / AFCEE 4.0 / USACE)	✓			/
5. Was the LLICV/LLCCV analyzed at appropriate frequency for 6010C and within control (+-30 % or +-20%)	✓			/
6. ICSA/ICSAB run at required frequency and within SOP limits? (ICSA < 2X MDL AFCEE 4.0, DOD V3 or < RL std work or < 2X RL 6010C, DOD V4, DOD V5)	✓			/
C. Sample Results				
1. For 6010B, were samples with concentrations > the linear range for any parameter diluted and reanalyzed? For 200.7, were samples with concentrations within 90% of the linear range diluted and reanalyzed?	✓			/
2. For DOD, were samples with concentrations > the daily linear range for any parameter diluted and reanalyzed?	✓			/
3. Are all reported results bracketed by in control QC?	✓			/
D. Other				
1. Are all nonconformances documented appropriately?	✓			/
2. Calculations checked for errors?	✓			/
3. Transcriptions checked for errors? (Example: Are dilution factors that are entered into the sequence log correct?)	✓			/
4. All client/project specific requirements met?	✓			/
5. Date/time of analysis verified as correct?	✓			/
6. PDF attached, verified uncorrupted?	✓			/

Analyst: [Signature]

Date: 6/2/15

Comments:

radical internal standard line fell low midway through the run

2nd Level Reviewer: [Signature]

Date: 6/2/15

Comments:

Sample Name: ICIS Acquired: 6/5/2015 9:13:57 Type: Cal
 Method: 6500_025(v16) Mode: IR Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-0.0125	.00061	-0.00473	-0.00027	.00105	.00320	-0.00099	-0.00108	.01245	-0.00019	-0.00078	-0.48986
Stddev	.00006	.00001	.00027	.00016	.00010	.00041	.00018	.00012	.00059	.00041	.00008	.56551
%RSD	4.8176	1.2814	5.6335	57.505	9.8102	12.826	18.425	11.260	4.7504	216.30	9.7639	115.44
#1	-0.0121	.00062	-0.00492	-0.00016	.00113	.00291	-0.00086	-0.00099	.01203	.00010	-0.00083	-0.08998
#2	-0.0129	.00061	-0.00454	-0.00038	.00098	.00349	-0.00111	-0.00116	.01287	-0.00048	-0.00072	-0.88973
Elem	Cu3247	Fe2599	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Na8183	Ni2316	P_1782
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00484	.00131	.00027	-0.00435	-0.00785	.00007	.00013	-0.00016	.00869	-0.01592	-0.00089	-0.00012
Stddev	.00003	.00024	.00034	.00195	.00005	.00002	.00000	.00008	.00138	.00043	.00020	.00002
%RSD	.65860	18.559	124.26	44.798	.57775	25.964	.54848	49.675	15.822	2.7030	22.226	19.579
#1	.00486	.00148	.00003	-0.00297	-0.00788	.00008	.00013	-0.00022	.00967	-0.01623	-0.00075	-0.00011
#2	.00482	.00114	.00052	-0.00572	-0.00781	.00006	.00013	-0.00010	.00772	-0.01562	-0.00103	-0.00014
Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-0.00069	-0.00108	.00032	-0.00009	.00139	.00139	.00003	-0.00407	-0.00062	-0.00016	-0.00030	.00002
Stddev	.00037	.00010	.00002	.00010	.00037	.00037	.00001	.00025	.00001	.00004	.00004	.00005
%RSD	54.080	8.9245	7.6945	110.70	26.984	26.984	27.946	6.2105	1.1825	24.865	14.740	309.35
#1	-0.00043	-0.00101	.00031	-0.00002	.00165	.00165	.00003	-0.00389	-0.00063	-0.00019	-0.00027	.00006
#2	-0.00096	-0.00115	.00034	-0.00016	.00112	.00112	.00004	-0.00424	-0.00062	-0.00013	-0.00033	-0.00002
Elem	V_2924	Zn2062	Zr3391									
Units	Cts/S	Cts/S	Cts/S									
Avg	-0.00078	.00000	-0.00449									
Stddev	.00000	.00001	.00039									
%RSD	.26157	2561.9	8.7551									
#1	-0.00078	.00001	-0.00476									
#2	-0.00078	-0.00001	-0.00421									
Int. Std.	Y_2243	Y_3600	Y_3774									
Units	Cts/S	Cts/S	Cts/S									
Avg	3315.2	65103.	6610.8									
Stddev	15.5	238.	64.5									
%RSD	.46737	.36552	.97501									
#1	3326.2	64934.	6565.2									
#2	3304.3	65271.	6656.4									

Sample Name: ICAL1 Acquired: 6/5/2015 9:16:21 Type: Cal
 Method: 6500_025(v16) Mode: IR Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.17085	.25413	.08746	.27623	3.6815	6.4054	1.3526	1.7731	.87177	3133.8	.25209	.70004	3.0085
Stddev	.00020	.00138	.00027	.00192	.0009	.0105	.0025	.0067	.00038	7.9	.00076	.00130	.0003
%RSD	.11885	.54215	.30981	.69584	.02462	.16372	.18409	.37707	.04305	.25145	.30216	.18603	.00907

#1	.17099	.25510	.08727	.27487	3.6821	6.3980	1.3508	1.7684	.87151	3128.2	.25263	.69912	3.0083
#2	.17070	.25315	.08765	.27758	3.6808	6.4128	1.3544	1.7778	.87204	3139.3	.25155	.70096	3.0087

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	Sb2068	Se1960	Si2881	SiO2	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.8773	.60833	.92349	.48628	1.4512	.66559	.09932	.42403	.18882	.07942	.25239	.25239	.22236
Stddev	.0044	.00009	.00001	.00240	.0024	.00217	.00001	.00196	.00064	.00022	.00091	.00091	.00134
%RSD	.23586	.01554	.00069	.49256	.16241	.32667	.01338	.46179	.34094	.27961	.35867	.35867	.60082

#1	1.8805	.60840	.92349	.48797	1.4495	.66405	.09933	.42541	.18927	.07927	.25303	.25303	.22330
#2	1.8742	.60827	.92348	.48458	1.4528	.66713	.09931	.42264	.18836	.07958	.25175	.25175	.22141

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8.9202	.25577	.17520	.15516	.01797	.27482
Stddev	.0136	.00029	.00068	.00036	.00006	.00092
%RSD	.15217	.11457	.38973	.22907	.36108	.33404

#1	8.9106	.25557	.17568	.15491	.01793	.27547
#2	8.9298	.25598	.17472	.15542	.01802	.27417

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3251.9	63289.	6638.9
Stddev	5.6	6.	20.0
%RSD	.17230	.00998	.30084

#1	3248.0	63285.	6653.0
#2	3255.9	63293.	6624.8

Sample Name: ICAL2 Acquired: 6/5/2015 9:18:46 Type: Cal
 Method: 6500_025(v16) Mode: IR Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Al3092	Bi2230	Fe2714	Na8183	S_1820	Th2837	U_3701
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.5114	.29995	.63454	2.0652	.27255	.43400	.11220
Stddev	.0007	.00171	.00640	.0062	.00143	.00311	.00108
%RSD	.02773	.57126	1.0081	.30139	.52486	.71565	.96146
#1	2.5109	.29874	.63001	2.0608	.27154	.43620	.11296
#2	2.5119	.30116	.63906	2.0696	.27356	.43180	.11144
Int. Std.	Y_2243	Y_3600	Y_3774				
Units	Cts/S	Cts/S	Cts/S				
Avg	3205.3	61381.	6592.4				
Stddev	7.6	74.	4.2				
%RSD	.23737	.12013	.06367				
#1	3210.7	61433.	6595.4				
#2	3199.9	61328.	6589.5				

Sample Name: s1-3305005 Acquired: 6/5/2015 9:21:28 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0022	.99110	1.9680	.98692	.99495	.98841	-.00606	9.9598	.98690	.99102	.98711	.99446	4.9682
Stddev	.0048	.00390	.0015	.00257	.00550	.00426	.00065	.0297	.00356	.00369	.00186	.00153	.0296
%RSD	.47692	.39332	.07748	.26051	.55266	.43087	10.643	.29811	.36052	.37223	.18849	.15396	.59682
#1	.99877	.99385	1.9691	.98873	.99106	.98540	-.00652	9.9388	.98941	.99363	.98843	.99337	4.9472
#2	1.0055	.98834	1.9670	.98510	.99884	.99142	-.00560	9.9808	.98438	.98841	.98579	.99554	4.9892

Check ?	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Value	Chk Pass	None	Chk Pass										
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	99.389	1.9749	40.038	1.0008	.98249	10.105	10.716	.98881	1.9916	1.9836	.00159	1.9899	1.9809
Stddev	.459	.0093	.163	.0043	.00673	.029	.221	.00075	.0152	.0047	.00790	.0326	.0175
%RSD	.46172	.47059	.40707	.43058	.68493	.28838	2.0613	.07536	.76372	.23804	495.79	1.6391	.88434
#1	99.065	1.9683	39.923	.99779	.98725	10.084	10.559	.98934	2.0023	1.9869	.00718	2.0130	1.9933
#2	99.714	1.9814	40.154	1.0039	.97773	10.125	10.872	.98828	1.9808	1.9802	-.00399	1.9668	1.9685

Check ?	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960
Value	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
Range													

Elem	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.9357	21.262	1.9751	.98680	-.00603	.99877	1.9932	-.02472	.99892	.99771	1.0020
Stddev	.1557	.333	.0225	.00514	.00244	.00595	.0244	.02286	.00736	.00646	.0162
%RSD	1.5673	1.5673	1.1387	.52057	40.479	.59609	1.2236	92.454	.73716	.64750	1.6127
#1	9.8256	21.027	1.9910	.98317	-.00431	.99456	2.0104	-.04088	.99371	.99315	.99059
#2	10.046	21.498	1.9592	.99043	-.00776	1.0030	1.9759	-.00856	1.0041	1.0023	1.0134

Check ?	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Value	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Range											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3266.6	62818.	6644.0
Stddev	1.0	258.	4.7
%RSD	.03169	.41056	.07049
#1	3267.3	63000.	6647.3
#2	3265.8	62635.	6640.7

Sample Name: s2-3304612 Acquired: 6/5/2015 9:23:53 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00682	99.425	-.00175	.00090	.00031	.00050	2.0096	.07524	-.00050	-.00263	.00166	.00453	99.077
Stddev	.00038	.258	.00024	.00124	.00040	.00010	.0028	.00634	.00013	.00006	.00063	.00036	.961
%RSD	5.6033	.25928	13.730	137.91	127.30	20.182	.14003	8.4296	25.703	2.1422	37.867	7.8612	.97024

#1	.00655	99.243	-.00158	.00177	.00060	.00057	2.0076	.07972	-.00041	-.00267	.00211	.00428	98.397
#2	.00709	99.607	-.00192	.00002	.00003	.00043	2.0115	.07075	-.00059	-.00259	.00122	.00479	99.757

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.23123	.00442	-.03190	-.00270	.00013	495.40	.00273	.01047	.00550	10.060	-.02028	-.00168	-.03876
Stddev	.06847	.00119	.00260	.00002	.00022	1.02	.00023	.00372	.00170	.039	.00027	.00262	.00112
%RSD	29.611	26.978	8.1564	.74161	161.79	.20494	8.5320	35.484	30.970	.39144	1.3373	155.92	2.8984

#1	.27964	.00526	-.03006	-.00268	-.00002	494.68	.00289	.00784	.00430	10.032	-.02047	-.00353	-.03955
#2	.18281	.00358	-.03374	-.00271	.00029	496.11	.00256	.01310	.00670	10.088	-.02008	.00017	-.03796

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.08294	-.00382	.00091	9.9203	-.03797	.00333	20.039	.00635	.00622	.19479
Stddev	.00240	.00044	.00013	.0667	.00029	.00193	.194	.00042	.00076	.00539
%RSD	2.8984	11.548	14.426	.67207	.75999	57.902	.96867	6.6112	12.277	2.7685

#1	-.08464	-.00351	.00081	9.8732	-.03817	.00197	19.902	.00665	.00568	.19097
#2	-.08124	-.00413	.00100	9.9675	-.03776	.00469	20.177	.00606	.00677	.19860

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3228.9	61897.	6661.0
Stddev	13.7	263.	13.2
%RSD	.42489	.42544	.19820

#1	3219.2	62083.	6670.3
#2	3238.6	61710.	6651.6

Sample Name: ICVH-3300139 Acquired: 6/5/2015 9:26:35 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00107	39.877	-.00070	-.00152	.00009	.00003	.50658	.02055	-.00024	-.00025	.00026
Stddev	.00075	.059	.00094	.00067	.00007	.00002	.00349	.00024	.00002	.00004	.00010
%RSD	70.083	.14805	133.35	44.113	75.074	50.746	.68819	1.1571	8.4194	14.982	38.877

#1	.00054	39.919	-.00136	-.00200	.00014	.00005	.50904	.02039	-.00026	-.00027	.00034
#2	.00159	39.835	-.00004	-.00105	.00004	.00002	.50411	.02072	-.00023	-.00022	.00019

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00129	78.315	.11504	.00032	-.01319	-.00022	-.00098	W 42.281	.00094	.00329	-.00046
Stddev	.00036	.268	.02293	.00017	.00255	.00003	.00020	.138	.00008	.00033	.00252
%RSD	28.087	.34159	19.931	52.164	19.331	12.658	20.232	.32602	8.7179	10.018	541.65

#1	.00154	78.126	.13125	.00044	-.01139	-.00020	-.00112	42.378	.00100	.00306	.00132
#2	.00103	78.504	.09883	.00021	-.01500	-.00023	-.00084	42.184	.00088	.00352	-.00225

Check ?	None	Chk Pass	None	None	None	None	None	Chk Warn	None	None	None
Value								40.000			
Range								5.4900%			

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.7837	-.00630	.00103	.00130	.00279	-.00103	.00025	2.9111	-.01153	.00363	5.2595
Stddev	.0074	.00306	.00023	.00199	.00425	.00036	.00004	.0014	.00089	.00188	.0001
%RSD	.19575	48.614	22.071	152.54	152.54	34.826	14.832	.04741	7.7362	51.715	.00097

#1	3.7785	-.00414	.00087	.00271	.00580	-.00078	.00023	2.9121	-.01090	.00230	5.2595
#2	3.7889	-.00847	.00119	-.00010	-.00022	-.00128	.00028	2.9101	-.01216	.00496	5.2594

Check ?	Chk Pass	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value											
Range											

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00189	.00144	.06011
Stddev	.00057	.00037	.00015
%RSD	30.008	25.434	.25496

#1	.00149	.00118	.06000
#2	.00229	.00170	.06021

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3338.7	64937.	6757.9
Stddev	18.7	300.	27.6
%RSD	.56087	.46266	.40779

#1	3352.0	64725.	6738.4
#2	3325.5	65150.	6777.4

Sample Name: ICV-3305004 Acquired: 6/5/2015 9:29:21 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24650	W .26894	.24359	.24474	.24842	.24336	-.00179	2.0200	.25211	.25423	.25657
Stddev	.00193	.00115	.00339	.00243	.00132	.00007	.00236	.0011	.00229	.00176	.00163
%RSD	.78391	.42639	1.3930	.99321	.53232	.02672	131.93	.05248	.90832	.69229	.63689

#1	.24514	.26975	.24119	.24302	.24749	.24331	-.00346	2.0193	.25050	.25298	.25542
#2	.24787	.26813	.24599	.24646	.24936	.24340	-.00012	2.0208	.25373	.25547	.25773

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		.25000									
Range		5.4900%									

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24903	.26288	19.906	.25333	10.117	.25182	.24439	2.0970	.25943	1.9686	.25878
Stddev	.00074	.00915	.094	.00118	.027	.00004	.00165	.0176	.00235	.0067	.00041
%RSD	.29536	3.4789	.47329	.46398	.26418	.01641	.67406	.83793	.90680	.33975	.15712

#1	.24851	.26935	19.840	.25250	10.099	.25179	.24323	2.0845	.25777	1.9639	.25849
#2	.24955	.25642	19.973	.25416	10.136	.25185	.24556	2.1094	.26110	1.9733	.25907

Check ?	Chk Pass										
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00291	.25396	.49756	1.9699	4.2155	.50335	.24631	.00042	.24951	.52288	-.02699
Stddev	.00393	.00126	.00167	.0240	.0514	.00041	.00082	.00082	.00022	.00137	.01833
%RSD	135.21	.49477	.33534	1.2183	1.2183	.08107	.33349	194.43	.08842	.26250	67.924

#1	.00013	.25307	.49874	1.9529	4.1792	.50306	.24573	.00100	.24936	.52191	-.01403
#2	.00569	.25484	.49638	1.9868	4.2519	.50363	.24689	-.00016	.24967	.52385	-.03995

Check ?	None	Chk Pass	None	Chk Pass	Chk Pass	None					
Value											
Range											

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.24837	.24907	.24281
Stddev	.00032	.00000	.00125
%RSD	.12857	.00092	.51643

#1	.24815	.24907	.24193
#2	.24860	.24907	.24370

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3355.7	64866.	6688.6
Stddev	12.7	67.	55.1
%RSD	.37818	.10289	.82451

#1	3346.7	64818.	6727.6
#2	3364.7	64913.	6649.6

Sample Name: xICVL-3312280 Acquired: 6/5/2015 9:33:12 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00996	.10740	.01321	.09889	.01018	.00090	.11083	.21742	.00508	.01076	.01056	.01585
Stddev	.00016	.00002	.00154	.00072	.00001	.00016	.00034	.00132	.00006	.00019	.00003	.00006
%RSD	1.5644	.01598	11.628	.72639	.13363	17.527	.30231	.60552	1.0932	1.7213	.30677	.38897

#1	.01007	.10739	.01212	.09940	.01017	.00079	.11107	.21649	.00504	.01089	.01058	.01580
#2	.00985	.10741	.01429	.09838	.01019	.00102	.11060	.21835	.00512	.01063	.01053	.01589

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10215	3.1735	.01229	.21433	.01081	.01913	1.0754	.04193	2.8732	.00950	.00340	.01138
Stddev	.00094	.0292	.00085	.00216	.00006	.00015	.0101	.00029	.0055	.00369	.00538	.00024
%RSD	.91844	.91914	6.9284	1.0097	.51504	.80020	.93805	.68329	.18970	38.777	158.06	2.0788

#1	.10281	3.1528	.01169	.21280	.01085	.01924	1.0683	.04213	2.8693	.01211	-.00040	.01121
#2	.10149	3.1941	.01289	.21586	.01077	.01902	1.0825	.04172	2.8770	.00690	.00720	.01155

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .02220	.48164	1.0307	.10163	.01035	.01760	.00992	F .02014	.05428	.01008	.02255	.01613
Stddev	.00143	.01610	.0345	.00048	.00010	.00057	.00012	.00026	.00726	.00011	.00055	.00088
%RSD	6.4456	3.3426	3.3426	.47373	1.0030	3.2345	1.2173	1.2710	13.369	1.1360	2.4445	5.4412

#1	.02119	.47025	1.0063	.10197	.01027	.01800	.01000	.02032	.05941	.01000	.02216	.01551
#2	.02321	.49302	1.0551	.10129	.01042	.01720	.00983	.01996	.04915	.01016	.02293	.01675

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass					
Value	.01500							.01500				
Range	30.000%							30.000%				

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3361.6	65148.	6725.8
Stddev	2.9	152.	31.2
%RSD	.08714	.23362	.46388

#1	3363.6	65041.	6747.9
#2	3359.5	65256.	6703.8

Sample Name: ICVL-3312280 Acquired: 6/5/2015 9:38:20 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01017	.10673	.01319	.09782	.00946	.00088	.11036	.20854	.00480	.01036	.01110	.01541
Stddev	.00027	.00004	.00489	.00035	.00012	.00007	.00071	.00053	.00027	.00029	.00011	.00031
%RSD	2.6396	.03441	37.033	.35371	1.2874	8.3761	.64575	.25394	5.6053	2.7645	.95169	1.9950

#1	.01036	.10671	.01665	.09758	.00938	.00093	.11086	.20891	.00461	.01016	.01102	.01563
#2	.00998	.10676	.00974	.09806	.00955	.00083	.10985	.20816	.00499	.01056	.01117	.01520

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10094	3.0990	.01176	.20946	.01048	.01930	1.0409	.04123	2.8270	.00875	-.00023	.00934
Stddev	.00196	.0764	.00043	.00512	.00009	.00045	.0019	.00070	.0162	.00379	.00256	.00022
%RSD	1.9411	2.4662	3.6304	2.4443	.88069	2.3563	.18065	1.7006	.57368	43.351	1123.5	2.3198

#1	.09956	3.0450	.01206	.20584	.01054	.01898	1.0396	.04073	2.8156	.00606	-.00204	.00949
#2	.10233	3.1531	.01145	.21308	.01041	.01962	1.0422	.04173	2.8385	.01143	.00158	.00918

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .02621	.46641	.99812	.09917	.01008	.01381	.00944	.01702	.06844	.00986	.02287	.01580
Stddev	.00155	.00639	.01368	.00031	.00013	.00038	.00067	.00278	.01880	.00110	.00033	.00025
%RSD	5.8989	1.3703	1.3703	.31614	1.2854	2.7687	7.0878	16.347	27.464	11.136	1.4431	1.5851

#1	.02512	.46189	.98845	.09939	.00999	.01408	.00896	.01505	.05515	.01063	.02264	.01562
#2	.02731	.47093	1.0078	.09895	.01017	.01354	.00991	.01898	.08173	.00908	.02311	.01597

Check ?	Chk Fail	Chk Pass										
Value	.01500											
Range	30.000%											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3371.9	65708.	6747.8
Stddev	5.6	24.	42.4
%RSD	.16515	.03725	.62895

#1	3367.9	65691.	6777.8
#2	3375.8	65726.	6717.8

Sample Name: ICVL-3312280 Acquired: 6/5/2015 9:40:56 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00947	.10604	.01230	.09782	.01017	.00099	.10585	.21831	.00493	.01053	.01098	.01534
Stddev	.00055	.00029	.00192	.00010	.00015	.00000	.00071	.00385	.00014	.00008	.00013	.00038
%RSD	5.8391	.27753	15.599	.10539	1.4979	.45255	.67231	1.7640	2.7728	.72205	1.1526	2.4956

#1	.00986	.10625	.01365	.09790	.01006	.00099	.10636	.21559	.00483	.01058	.01107	.01507
#2	.00908	.10583	.01094	.09775	.01028	.00099	.10535	.22104	.00502	.01047	.01089	.01561

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10039	3.0981	.01126	.20848	.01054	.01920	1.0527	.04153	2.8325	.00912	-.00281	.01061
Stddev	.00202	.0291	.00066	.00288	.00002	.00017	.0254	.00029	.0101	.00026	.00473	.00041
%RSD	2.0154	.93898	5.8282	1.3791	.14733	.88475	2.4154	.70212	.35552	2.9053	168.08	3.8993

#1	.10182	3.0775	.01079	.20644	.01055	.01908	1.0347	.04132	2.8254	.00931	-.00616	.01091
#2	.09896	3.1186	.01172	.21051	.01053	.01932	1.0706	.04174	2.8396	.00893	.00053	.01032

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .02090	.47296	1.0121	.09999	.01027	.01529	.00910	.01602	.05862	.00950	.02288	.01518
Stddev	.00081	.01742	.0373	.00030	.00021	.00091	.00001	.00025	.00549	.00015	.00053	.00003
%RSD	3.8929	3.6837	3.6837	.30388	1.9998	5.9401	.10321	1.5449	9.3598	1.5409	2.3370	.21885

#1	.02148	.46064	.98578	.10021	.01013	.01465	.00911	.01620	.05474	.00940	.02326	.01516
#2	.02033	.48528	1.0385	.09978	.01042	.01593	.00909	.01585	.06250	.00960	.02250	.01520

Check ?	Chk Fail	Chk Pass										
Value	.01500											
Range	30.000%											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3387.8	65845.	6809.1
Stddev	5.1	47.	31.7
%RSD	.15083	.07173	.46498

#1	3391.4	65879.	6786.7
#2	3384.2	65812.	6831.5

Sample Name: CCVH-3304613 Acquired: 6/5/2015 9:43:42 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00296	48.376	-0.00351	-0.00089	-0.00013	-0.00001	.99629	.03307	.00000	-0.00113	.00075	.00297	48.040
Stddev	.00025	.060	.00172	.00041	.00017	.00015	.00069	.00513	.0001	.00013	.00000	.00015	.789
%RSD	8.2926	.12474	49.044	45.781	131.54	1200.0	.06932	15.512	1254.0	11.742	.11592	5.1195	1.6426

#1	.00313	48.419	-0.00229	-0.00060	-0.00001	-0.00012	.99580	.03669	-0.00005	-0.00123	.00075	.00308	47.482
#2	.00278	48.333	-0.00473	-0.00117	-0.00024	.00009	.99678	.02944	.00004	-0.00104	.00075	.00286	48.598

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06644	.00106	-0.02343	-0.00142	-0.00027	243.32	.00116	.00405	.00150	4.8156	-0.00877	.00213	-0.02999
Stddev	.03592	.00280	.00087	.00004	.00030	1.22	.00013	.00229	.00004	.0119	.00180	.00177	.00024
%RSD	54.061	263.56	3.7037	2.5091	109.30	.49978	11.246	56.416	2.4717	.24649	20.545	83.098	.80717

#1	.04104	-0.00092	-0.02282	-0.00144	-0.00048	242.46	.00126	.00567	.00153	4.8240	-0.00750	.00088	-0.03016
#2	.09183	.00304	-0.02405	-0.00139	-0.00006	244.18	.00107	.00244	.00148	4.8072	-0.01005	.00338	-0.02982

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.06418	-0.00267	.00032	4.8721	-0.01870	.00273	10.260	.00232	.00033	.08518
Stddev	.00052	.00052	.00013	.0234	.00034	.00201	.006	.00067	.00021	.00974
%RSD	.80717	19.524	41.492	.48004	1.7968	73.345	.05759	29.017	61.733	11.432

#1	-0.06455	-0.00230	.00023	4.8886	-0.01846	.00415	10.256	.00280	.00019	.07830
#2	-0.06382	-0.00303	.00042	4.8555	-0.01894	.00132	10.264	.00185	.00048	.09207

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3309.3	63343.	6763.7
Stddev	1.6	530.	30.3
%RSD	.04933	.83611	.44768

#1	3310.4	62969.	6742.3
#2	3308.1	63718.	6785.1

Sample Name: CCV-3305006 Acquired: 6/5/2015 9:46:20 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49388	.50113	.96872	.48721	.49011	.48164	-.00201	4.9671	.48957	.50372	.51254	.48827	2.4455
Stddev	.00330	.00108	.00049	.00115	.00041	.00033	.00160	.0086	.00010	.00353	.00269	.00317	.0073
%RSD	.66740	.21548	.05057	.23555	.08444	.06877	79.642	.17309	.02016	.70161	.52523	.64908	.29628

#1	.49621	.50190	.96906	.48640	.49040	.48141	-.00088	4.9610	.48964	.50622	.51445	.49051	2.4404
#2	.49155	.50037	.96837	.48802	.48982	.48187	-.00314	4.9732	.48950	.50122	.51064	.48603	2.4506

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.972	.97647	19.712	.49472	.48126	4.9563	.50073	.97430	.99781	.00404	.98213	.97783	4.8457
Stddev	.122	.00269	.000	.00052	.00189	.0093	.00198	.00237	.01114	.00294	.01209	.00774	.0307
%RSD	.24896	.27527	.00090	.10536	.39342	.18708	.39597	.24311	1.1165	72.824	1.2308	.79195	.63260

#1	48.886	.97837	19.712	.49435	.48260	4.9629	.50213	.97597	1.0057	.00611	.99068	.98331	4.8240
#2	49.058	.97457	19.712	.49509	.47992	4.9498	.49932	.97262	.98994	.00196	.97358	.97235	4.8674

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.370	.97183	.48465	-.00312	.48805	1.0082	-.01468	.49016	.49342	.49252
Stddev	.066	.00744	.00121	.00061	.00018	.0137	.00257	.00159	.00123	.00443
%RSD	.63260	.76590	.25017	19.616	.03743	1.3545	17.473	.32433	.25003	.90004

#1	10.323	.97709	.48550	-.00356	.48792	1.0178	-.01650	.48903	.49255	.48939
#2	10.416	.96657	.48379	-.00269	.48818	.99853	-.01287	.49128	.49429	.49566

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3378.1	65255.	6888.5
Stddev	7.8	257.	7.9
%RSD	.23202	.39369	.11455

#1	3383.7	65437.	6894.1
#2	3372.6	65073.	6882.9

Sample Name: ICB Acquired: 6/5/2015 9:48:48 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00020	.00148	.00010	-.00058	-.00011	-.00004	-.00122	.00364	.00020	.00015	.00030	.00094
Stddev	.00014	.00016	.00176	.00002	.00014	.00006	.00157	.00462	.00023	.00011	.00014	.00039
%RSD	70.920	10.817	1787.1	3.6003	119.03	167.57	128.72	127.08	117.79	73.202	46.121	41.297

#1	.00010	.00159	.00134	-.00057	-.00002	.00001	-.00011	.00037	.00003	.00007	.00020	.00121
#2	.00030	.00137	-.00114	-.00060	-.00021	-.00008	-.00233	.00691	.00036	.00023	.00039	.00066

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00164	.09114	.00142	-.00522	.00015	.00020	.01887	-.00052	-.00088	.00157	.00617	.00151
Stddev	.00185	.06422	.00025	.00392	.00003	.00019	.00015	.00045	.00027	.00121	.00690	.00118
%RSD	112.91	70.460	17.244	75.010	22.720	99.118	.80604	86.899	30.185	76.860	111.80	78.470

#1	.00295	.13655	.00160	-.00245	.00012	.00033	.01898	-.00020	-.00107	.00243	.00129	.00235
#2	.00033	.04573	.00125	-.00799	.00017	.00006	.01876	-.00084	-.00069	.00072	.01105	.00067

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F.00624	-.01498	-.03207	-.00068	.00006	.00233	-.00017	.00005	-.00882	-.00025	.00054	.00261
Stddev	.00022	.01510	.03231	.00030	.00002	.00100	.00029	.00038	.01561	.00063	.00002	.00066
%RSD	3.5754	100.77	100.77	43.973	28.669	42.745	173.44	837.11	177.06	256.56	3.3251	25.433

#1	.00608	-.00431	-.00922	-.00089	.00005	.00163	-.00037	.00031	.00222	.00020	.00052	.00307
#2	.00640	-.02566	-.05491	-.00047	.00008	.00304	.00004	-.00022	-.01986	-.00069	.00055	.00214

Check ?	Chk Fail	Chk Pass										
High Limit	.00500											
Low Limit	-.00500											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3391.3	66191.	6872.1
Stddev	2.1	152.	1.7
%RSD	.06085	.22934	.02432

#1	3389.9	66084.	6871.0
#2	3392.8	66298.	6873.3

Sample Name: CRI-3312284 Acquired: 6/5/2015 9:52:50 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00881	.10299	.01087	.09664	.00483	.00083	.10932	.20330	.00504	.00487	.01047
Stddev	.00006	.00047	.00031	.00046	.00000	.00006	.00268	.00126	.00005	.00009	.00023
%RSD	.63053	.45707	2.8192	.47944	.01435	6.8304	2.4518	.62205	.93261	1.9270	2.2328

#1	.00877	.10333	.01066	.09631	.00483	.00079	.11121	.20419	.00508	.00480	.01064
#2	.00885	.10266	.01109	.09697	.00483	.00087	.10742	.20241	.00501	.00493	.01031

Check ?	Chk Pass										
Value											
Range											

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01083	.03040	1.1188	W .01222	.20050	.00312	.00931	1.0050	.01018	.93703	F .00451
Stddev	.00041	.00118	.0211	.00006	.00368	.00003	.00017	.0098	.00011	.00229	.00037
%RSD	3.8296	3.8674	1.8884	.50712	1.8347	.82746	1.8388	.97901	1.0966	.24449	8.1534

#1	.01113	.03123	1.1337	.01218	.19790	.00313	.00944	.99808	.01026	.93541	.00477
#2	.01054	.02957	1.1038	.01226	.20311	.00310	.00919	1.0120	.01010	.93865	.00425

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Fail					
Value				.01000							.00300
Range				20.490%							50.000%

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09260	.01165	W .01498	.48073	1.0288	.01888	.00498	W .00726	.00943	W .01254	F .02382
Stddev	.00233	.00079	.00001	.00911	.0195	.00118	.00014	.00040	.00015	.00175	.00667
%RSD	2.5141	6.7594	.03839	1.8958	1.8958	6.2408	2.7900	5.4750	1.6144	13.943	28.015

#1	.09424	.01221	.01498	.48718	1.0426	.01805	.00488	.00698	.00932	.01377	.01910
#2	.09095	.01110	.01499	.47429	1.0150	.01972	.00508	.00754	.00954	.01130	.02854

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Fail
Value			.01000					.01000		.01000	.06000
Range			20.490%					-20.490%		20.490%	-50.000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00957	.00953	W .01378
Stddev	.00100	.00016	.00196
%RSD	10.480	1.6831	14.198

#1	.00886	.00942	.01517
#2	.01028	.00965	.01240

Check ?	Chk Pass	Chk Pass	Chk Warn
Value			.01000
Range			20.490%

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3416.6	66604.	6907.3
Stddev	.4	100.	34.3
%RSD	.01121	.14996	.49604

#1	3416.8	66674.	6883.1
#2	3416.3	66533.	6931.5

Sample Name: CRI-3313083 Acquired: 6/5/2015 9:59:32 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00013	-.00044	-.00037	-.00137	-.00021	-.00014	-.00342	.00655	.00024
Stddev	.00055	.00008	.00265	.00026	.00008	.00010	.00115	.00543	.00002
%RSD	419.75	17.259	725.18	19.266	38.366	69.738	33.660	82.929	9.8059

#1	.00052	-.00039	-.00224	-.00156	-.00027	-.00021	-.00261	.01039	.00022
#2	-.00026	-.00049	.00151	-.00119	-.00016	-.00007	-.00424	.00271	.00026

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00041	.00017	.00060	-.00083	.05104	-.00163	-.00271	.00003	-.00029
Stddev	.00031	.00016	.00001	.00162	.02649	.00032	.00117	.00002	.00021
%RSD	75.640	93.293	1.8492	195.24	51.901	19.770	43.318	60.355	73.315

#1	-.00064	.00006	.00060	.00032	.03231	-.00186	-.00188	.00002	-.00014
#2	-.00019	.00028	.00059	-.00197	.06978	-.00140	-.00354	.00004	-.00044

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00816	-.00003	-.00369	F .00972	.00031	-.00019	W .01483	.00075	.00161
Stddev	.01277	.00048	.00102	.00120	.00166	.00135	.00005	.01242	.02658
%RSD	156.54	1464.8	27.712	12.310	531.49	705.84	.30471	1651.2	1651.2

#1	-.01719	-.00037	-.00296	.01056	-.00086	.00076	.01479	.00954	.02041
#2	.00087	.00031	-.00441	.00887	.00148	-.00114	.01486	-.00803	-.01719

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Warn	Chk Pass	None
High Limit				.00900			.00750		
Low Limit				-.00300			-.00750		

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00056	.00011	-.00025	-.00023	.00159	-.01396	.00004	.00085	.00284
Stddev	.00062	.00008	.00049	.00034	.00055	.01294	.00034	.00052	.00278
%RSD	112.26	71.474	192.39	144.88	34.372	92.749	887.84	61.621	97.760

#1	-.00011	.00016	.00009	-.00047	.00198	-.02311	-.00020	.00048	.00480
#2	-.00100	.00005	-.00060	.00001	.00121	-.00480	.00028	.00122	.00088

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3349.7	65143.	6698.7
Stddev	8.5	483.	48.9
%RSD	.25488	.74073	.73045

#1	3355.7	65484.	6733.3
#2	3343.6	64802.	6664.1

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00052	517.10	W .01051	W -.00988	-.00008	-.00016	-.00128	471.31	-.00071	-.00018	W .00426
Stddev	.00017	3.21	.00523	.00278	.00015	.00008	.00369	9.08	.00023	.00063	.00016
%RSD	32.114	.62084	49.733	28.176	185.70	46.810	289.12	1.9265	32.910	347.78	3.8479

#1	.00064	519.37	.00681	-.00791	-.00019	-.00021	.00133	477.73	-.00055	.00027	.00414
#2	.00040	514.83	.01420	-.01185	.00003	-.00011	-.00389	464.89	-.00088	-.00063	.00438

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Warn					
High Limit			.00882	.00700							.00186
Low Limit			-.00882	-.00700							-.00186

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00058	181.87	.03868	.00437	515.57	W .00131	-.00583	.02918	.00081	-.00452	W .00685
Stddev	.00054	1.00	.04641	.00091	2.01	.00002	.00084	.00516	.00019	.00014	.00181
%RSD	93.503	.55105	120.01	20.855	.38947	1.4240	14.486	17.674	23.187	3.0532	26.419

#1	.00096	182.58	.07150	.00502	514.15	.00132	-.00642	.02553	.00095	-.00442	.00813
#2	.00020	181.16	.00585	.00373	516.99	.00130	-.00523	.03282	.00068	-.00461	.00557

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn				
High Limit						.00050					.00500
Low Limit						-.00050					-.00500

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.10449	-.00156	F .01634	W .00907	.01940	.00049	W .00447	W .01349	.00002	-.00616	-.15983
Stddev	.01404	.00095	.01157	.00292	.00624	.00129	.00007	.00241	.00015	.00052	.04512
%RSD	13.440	60.961	70.810	32.168	32.168	264.48	1.6192	17.834	938.11	8.4392	28.233

#1	-.09456	-.00224	.02452	.01113	.02382	.00140	.00441	.01519	-.00009	-.00579	-.12792
#2	-.11442	-.00089	.00816	.00700	.01499	-.00043	.00452	.01179	.00012	-.00653	-.19174

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Warn	None	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit			.01300	.00694			.00050	.00800			
Low Limit			-.01300	-.06940			-.00050	-.00800			

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00186	.00424	-.00337
Stddev	.00079	.00023	.00160
%RSD	42.632	5.4651	47.572

#1	.00242	.00408	-.00450
#2	.00130	.00441	-.00224

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2973.5	56492.	6501.5
Stddev	3.7	64.	75.5
%RSD	.12350	.11295	1.1608

#1	2976.1	56537.	6448.1
#2	2970.9	56446.	6554.8

Sample Name: ICSAB-3290308 Acquired: 6/5/2015 10:09:02 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0571	507.73	1.9231	1.8633	.50144	.47555	.98243	462.97	1.0038	.45410	.43369	.50609	178.65
Stddev	.0037	3.08	.0104	.0069	.00206	.00267	.00499	2.47	.0008	.00067	.00125	.00145	1.61
%RSD	.35107	.60742	.54095	.37132	.41024	.56139	.50787	.53442	.07937	.14663	.28843	.28725	.90335

#1	1.0545	505.55	1.9157	1.8584	.49998	.47366	.97890	464.72	1.0033	.45457	.43280	.50506	177.51
#2	1.0597	509.91	1.9305	1.8682	.50289	.47744	.98596	461.22	1.0044	.45363	.43457	.50711	179.80

Check ?	Chk Pass												
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.088	1.0103	497.03	.48532	.90244	50.896	.90947	1.8634	.90927	.88915	.94848	4.6482	10.405
Stddev	.311	.0042	3.00	.00064	.00183	.116	.00072	.0144	.00066	.00320	.00329	.0115	.044
%RSD	.60799	.41300	.60422	.13130	.20271	.22810	.07932	.77006	.07208	.35988	.34727	.24681	.42106

#1	50.868	1.0073	499.16	.48577	.90115	50.813	.90998	1.8533	.90973	.89141	.94615	4.6400	10.374
#2	51.308	1.0132	494.91	.48487	.90373	50.978	.90896	1.8736	.90881	.88688	.95080	4.6563	10.436

Check ?	Chk Pass												
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.267	8.5851	.95781	1.9858	.94579	8.1893	-.19070	.49873	.93214	.97491
Stddev	.094	.0201	.00568	.0010	.00057	.0058	.00046	.00045	.00289	.01141
%RSD	.42106	.23410	.59328	.05300	.06025	.07128	.24201	.09042	.31055	1.1706

#1	22.201	8.5709	.95379	1.9866	.94539	8.1852	-.19103	.49905	.93418	.96684
#2	22.334	8.5993	.96183	1.9851	.94620	8.1934	-.19038	.49841	.93009	.98298

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass					
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2963.7	56080.	6426.5
Stddev	5.5	143.	30.2
%RSD	.18441	.25411	.46982

#1	2967.5	55979.	6447.9
#2	2959.8	56181.	6405.2

Sample Name: LRA-3255707 Acquired: 6/5/2015 10:11:55 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00407	-.22321	9.4144	9.1007	12.175	-.00598	-.03028	.19354	1.9486	4.8081	9.5921	10.268	483.92
Stddev	.00019	.01064	.0624	.0296	.322	.00007	.00394	.00126	.0043	.0068	.0067	.003	8.10
%RSD	4.5928	4.7658	.66328	.32568	2.6438	1.1715	13.022	.65145	.22288	.14113	.07023	.02761	1.6730

#1	.00420	-.23073	9.4586	9.1216	12.403	-.00602	-.03307	.19265	1.9516	4.8129	9.5969	10.270	489.65
#2	.00394	-.21569	9.3703	9.0797	11.948	-.00593	-.02749	.19443	1.9455	4.8033	9.5874	10.266	478.20

Check ?	None	None	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.04807	.00031	.04162	9.5465	4.6695	.01793	9.6646	.00584	9.6354	-.02835	.02912	4.6923	46.686
Stddev	.07059	.00216	.00581	.0549	.0183	.00498	.0251	.00176	.0270	.00117	.00377	.0193	.549
%RSD	146.86	700.12	13.966	.57545	.39190	27.767	.25950	30.114	.28016	4.1305	12.951	.41191	1.1761

#1	.00185	-.00122	.04573	9.5854	4.6825	.01441	9.6823	.00459	9.6545	-.02918	.02645	4.7060	47.075
#2	-.09798	.00184	.03751	9.5077	4.6566	.02145	9.6469	.00708	9.6163	-.02753	.03179	4.6786	46.298

Check ?	None	None	None	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	None	None	Chk Pass	Chk Pass
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	99.909	.02058	9.6323	.04806	9.6424	4.8584	-.38556	9.6107	9.2469	-.01195
Stddev	1.175	.00082	.0731	.00121	.0373	.0147	.02592	.0499	.0549	.00080
%RSD	1.1761	3.9878	.75928	2.5104	.38703	.30326	6.7232	.51944	.59372	6.7154

#1	100.74	.02000	9.6840	.04721	9.6687	4.8688	-.40389	9.6460	9.2857	-.01252
#2	99.078	.02117	9.5806	.04891	9.6160	4.8480	-.36723	9.5754	9.2081	-.01138

Check ?	None	None	Chk Pass	None	Chk Pass	None	None	Chk Pass	Chk Pass	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3267.5	63367.	6537.6
Stddev	6.8	125.	51.3
%RSD	.20887	.19722	.78515

#1	3262.7	63279.	6501.3
#2	3272.4	63456.	6573.8

Sample Name: CCVH-3304613 Acquired: 6/5/2015 10:14:45 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00315	48.727	.00221	.01830	.00094	.00011	.99249	.04458	-.00011	-.00132	.00115	.00320	48.930
Stddev	.00068	.755	.00448	.00279	.00018	.00002	.00369	.00558	.00012	.00066	.00037	.00020	.998
%RSD	21.481	1.5502	202.52	15.244	19.686	16.081	.37158	12.518	108.05	50.113	32.004	6.2878	2.0394

#1	.00363	48.193	-.00096	.02028	.00107	.00012	.99510	.04853	-.00003	-.00179	.00141	.00306	48.224
#2	.00267	49.262	.00538	.01633	.00081	.00009	.98988	.04064	-.00020	-.00085	.00089	.00334	49.636

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08324	.00288	-.02024	-.00087	.00111	244.80	.00149	.00355	.00306	4.7753	-.00899	-.00428	.02171
Stddev	.05406	.00024	.00205	.00005	.00045	4.78	.00030	.00165	.00048	.0140	.00046	.00767	.01196
%RSD	64.947	8.3439	10.117	5.5265	40.487	1.9522	20.058	46.584	15.597	.29367	5.1121	179.18	55.074

#1	.12147	.00305	-.01879	-.00084	.00079	241.42	.00170	.00238	.00339	4.7852	-.00931	-.00970	.03017
#2	.04501	.00271	-.02169	-.00091	.00142	248.18	.00128	.00472	.00272	4.7654	-.00866	.00114	.01326

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04647	-.00164	.00115	4.8806	-.01748	.00293	10.333	.00367	.00197	.09571
Stddev	.02559	.00018	.00014	.0142	.00024	.00128	.011	.00033	.00067	.01070
%RSD	55.074	10.850	11.838	.29157	1.3492	43.813	.10175	8.9012	34.086	11.185

#1	.06456	-.00176	.00125	4.8907	-.01765	.00202	10.341	.00390	.00245	.08814
#2	.02837	-.00151	.00105	4.8705	-.01731	.00383	10.326	.00344	.00150	.10328

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3292.0	62927.	6686.5
Stddev	11.9	71.	73.4
%RSD	.36247	.11348	1.0977

#1	3283.6	62876.	6738.4
#2	3300.5	62977.	6634.6

Sample Name: CCV-3305006 Acquired: 6/5/2015 10:17:21 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49452	.49766	.95571	.49512	.48819	.47942	-.00532	4.9608	.48603	.50205	.50617	.48936	2.4355
Stddev	.00244	.00075	.00381	.00030	.00695	.00513	.00232	.0595	.00121	.00240	.00125	.00269	.0258
%RSD	.49300	.15131	.39823	.06021	1.4232	1.0710	43.650	1.2005	.24992	.47897	.24659	.55070	1.0611

#1	.49280	.49819	.95840	.49491	.48328	.47579	-.00697	4.9187	.48689	.50375	.50705	.48746	2.4172
#2	.49624	.49712	.95302	.49533	.49310	.48305	-.00368	5.0029	.48517	.50035	.50529	.49127	2.4537

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.038	.97574	19.666	.49157	.47670	4.8953	.49956	.96395	.99423	.00229	.97383	.97780	4.8362
Stddev	.539	.01012	.050	.00076	.00313	.0640	.00406	.00147	.00129	.00116	.00091	.00061	.0602
%RSD	1.0985	1.0367	.25580	.15373	.65748	1.3073	.81274	.15226	.12994	50.809	.09295	.06278	1.2454

#1	48.658	.96858	19.630	.49211	.47892	4.8501	.50243	.96291	.99515	.00311	.97447	.97736	4.7936
#2	49.419	.98289	19.701	.49104	.47448	4.9406	.49669	.96499	.99332	.00147	.97319	.97823	4.8788

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.349	.96064	.48194	-.00269	.48518	1.0034	-.01843	.48630	.48709	.48775
Stddev	.129	.00603	.00612	.00205	.00010	.0018	.02485	.00030	.00106	.00788
%RSD	1.2454	.62776	1.2690	76.174	.02152	.18049	134.85	.06102	.21715	1.6164

#1	10.258	.96491	.47762	-.00124	.48511	1.0047	-.03600	.48651	.48635	.48218
#2	10.441	.95638	.48627	-.00414	.48526	1.0021	-.00086	.48609	.48784	.49332

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3368.4	64497.	6754.1
Stddev	7.9	106.	51.8
%RSD	.23404	.16439	.76705

#1	3362.9	64422.	6790.7
#2	3374.0	64572.	6717.5

Sample Name: CCB Acquired: 6/5/2015 10:19:49 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0029	.00151	.00129	.00698	-0.00027	-0.00010	-0.00018	.00142	-0.00006	.00020	.00010	-0.00023
Stddev	.00022	.00027	.00090	.00036	.00009	.00003	.00087	.00113	.00022	.00028	.00002	.00004
%RSD	75.159	17.944	69.541	5.1137	33.001	25.596	472.28	79.747	350.78	138.76	21.788	18.649

#1	-0.00045	.00170	.00193	.00723	-0.00033	-0.00012	-0.00080	.00062	-0.00021	.00040	.00009	-0.00026
#2	-0.00014	.00132	.00066	.00673	-0.00021	-0.00008	.00043	.00222	.00009	.00000	.00012	-0.00020

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.10276	.00132	-0.00335	.00010	.00024	.00217	.00012	-0.00224	.00052	.00169	.00121
Stddev	.00045	.03299	.00154	.00216	.00004	.00007	.00520	.00080	.00179	.00025	.00436	.00258
%RSD	2640.5	32.109	116.42	64.358	43.551	28.866	239.10	653.88	79.934	47.729	258.06	213.24

#1	.00034	.12609	.00023	-.00488	.00007	.00019	-.00150	-.00044	-.00350	.00035	.00477	.00303
#2	-0.00030	.07943	.00240	-.00183	.00013	.00028	.00585	.00068	-.00097	.00070	-.00139	-.00061

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .00732	.00696	.01490	-0.00097	.00004	.00189	.00024	-0.00009	-0.03009	-0.00015	.00043	.00299
Stddev	.00240	.00348	.00744	.00043	.00011	.00317	.00007	.00201	.01895	.00003	.00001	.00157
%RSD	32.790	49.925	49.925	44.890	315.37	167.83	29.263	2227.8	62.964	19.750	1.6488	52.304

#1	.00562	.00942	.02015	-.00066	.00011	.00413	.00029	.00133	-.04349	-.00013	.00042	.00410
#2	.00901	.00450	.00964	-.00128	-.00004	-.00035	.00019	-.00151	-.01669	-.00017	.00043	.00189

Check ?	Chk Fail	Chk Pass										
High Limit	.00500											
Low Limit	-.00500											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3380.3	65312.	6742.8
Stddev	5.8	298.	25.5
%RSD	.17254	.45577	.37854

#1	3376.2	65102.	6724.8
#2	3384.4	65523.	6760.9

Sample Name: CCVL-3312280 Acquired: 6/5/2015 10:23:03 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01024	.10748	F .00865	.10339	.00982	.00085	.11000	.21552	.00499	.01044	.01079	.01586
Stddev	.00013	.00032	.00105	.00101	.00038	.00009	.00112	.00285	.00010	.00019	.00013	.00010
%RSD	1.3143	.29361	12.114	.97626	3.8345	9.9775	1.0177	1.3201	2.0563	1.8435	1.2058	.65955

#1	.01034	.10725	.00791	.10268	.00955	.00091	.10921	.21351	.00492	.01030	.01070	.01579
#2	.01015	.10770	.00940	.10411	.01009	.00079	.11079	.21753	.00506	.01057	.01089	.01594

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass								
Value			.01500									
Range			-30.000%									

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10097	3.1978	.00953	.21452	.01055	.01930	1.0221	.04152	2.8346	.00959	-.00362	.01253
Stddev	.00243	.0909	.00129	.00106	.00007	.00064	.0199	.00078	.0153	.00135	.00479	.00145
%RSD	2.4071	2.8412	13.508	.49483	.62336	3.3232	1.9452	1.8782	.53948	14.063	132.24	11.548

#1	.09926	3.1335	.01044	.21377	.01050	.01885	1.0081	.04097	2.8238	.01055	-.00024	.01356
#2	.10269	3.2620	.00862	.21527	.01060	.01976	1.0362	.04207	2.8454	.00864	-.00701	.01151

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01839	4.7793	1.0228	.09992	.01018	.01614	.01014	.01785	.06548	.01026	.02325	.01651
Stddev	.00050	.00895	.0191	.00032	.00018	.00123	.00013	.00044	.00407	.00004	.00004	.00173
%RSD	2.7452	1.8717	1.8717	.32474	1.8129	7.5989	1.2959	2.4834	6.2083	.41326	.15301	10.497

#1	.01803	.48425	1.0363	.09969	.01005	.01701	.01024	.01754	.06260	.01029	.02322	.01774
#2	.01875	.47160	1.0092	.10015	.01031	.01528	.01005	.01817	.06835	.01023	.02327	.01528

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3382.4	65450.	6750.8
Stddev	.3	203.	43.3
%RSD	.00985	.30946	.64122

#1	3382.2	65593.	6781.4
#2	3382.7	65307.	6720.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0024	.00320	.00016	.00759	-0.00014	-0.00011	-0.00338	.04479	.00009
Stddev	.00002	.00024	.00042	.00038	.00006	.00003	.00402	.00229	.00006
%RSD	9.4430	7.4250	271.27	5.0282	43.998	25.243	118.79	5.1037	73.196

#1	-0.0026	.00303	-0.0014	.00786	-0.0009	-0.0013	-0.0054	.04318	.00013
#2	-0.0023	.00337	.00045	.00732	-0.0018	-0.0009	-0.0623	.04641	.00004

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0067	.00048	.00134	.00943	.11065	.00174	.00207	.00036	-0.0013
Stddev	.00003	.00002	.00036	.00267	.03661	.00043	.00104	.00003	.00067
%RSD	5.2278	4.9643	26.732	28.309	33.084	24.593	50.341	7.4029	516.57

#1	-0.0064	.00050	.00160	.00754	.08476	.00144	.00133	.00038	.00034
#2	-0.0069	.00046	.00109	.01132	.13654	.00205	.00280	.00034	-0.0060

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	286.38	-0.0052	.00093	-0.0029	.00372	-0.0138	.00515	.00398	.00852
Stddev	.94	.00008	.00013	.00255	.00288	.00297	.00021	.01557	.03332
%RSD	.32993	16.352	13.600	895.58	77.548	215.22	3.9939	391.00	391.00

#1	285.71	-0.0058	.00102	.00152	.00168	.00072	.00529	.01499	.03208
#2	287.05	-0.0046	.00084	-0.00209	.00576	-0.00348	.00500	-0.00703	-0.1504

Check ?	None	Chk Pass	None						
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00015	.00011	.00105	-0.00002	.00171	-0.00702	-0.00065	.00180	.00011
Stddev	.00087	.00007	.00051	.00012	.00220	.00306	.00000	.00016	.00004
%RSD	599.24	70.442	48.524	699.70	128.77	43.604	.72221	8.8689	38.880

#1	.00076	.00016	.00069	.00007	.00327	-0.00486	-0.00065	.00191	.00008
#2	-0.0047	.00005	.00141	-0.00010	.00015	-0.00919	-0.00065	.00168	.00014

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3197.0	60741.	6599.9
Stddev	8.5	627.	10.0
%RSD	.26628	1.0322	.15155

#1	3191.0	60297.	6606.9
#2	3203.0	61184.	6592.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.20025	W .35879	.73261	.18555	2.2267	.00910	.37918	9.1475	.20933
Stddev	.00051	.00010	.00293	.00102	.0012	.00001	.00073	.0234	.00029
%RSD	.25235	.02650	.39976	.55008	.05403	.09920	.19254	.25581	.13824

#1	.19989	.35886	.73054	.18627	2.2275	.00911	.37866	9.1641	.20954
#2	.20060	.35872	.73468	.18483	2.2258	.00910	.37970	9.1310	.20913

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit		.43200							
Low Limit		1.7200							

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09167	F .92427	.41845	.18714	9.8287	.19204	F 8.7536	.09269	.19043
Stddev	.00028	.00239	.00009	.00034	.0404	.00113	.0030	.00007	.00069
%RSD	.31082	.25891	.02075	.18049	.41144	.58770	.03401	.07760	.36352

#1	.09187	.92596	.41839	.18738	9.8573	.19283	8.7515	.09274	.18994
#2	.09146	.92258	.41851	.18690	9.8001	.19124	8.7557	.09264	.19092

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit		.25200					11.300		
Low Limit		.16800					9.2000		

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 284.60	.09176	1.8696	1.0085	.37554	.10161	.56700	F 1.8476	F 3.9538
Stddev	.20	.00051	.0098	.0004	.00761	.00036	.00356	.0052	.0111
%RSD	.06942	.55862	.52469	.03765	2.0266	.35310	.62778	.27935	.27935

#1	284.74	.09212	1.8626	1.0083	.37016	.10186	.56448	1.8439	3.9460
#2	284.46	.09139	1.8765	1.0088	.38092	.10135	.56952	1.8512	3.9616

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Fail	Chk Fail
High Limit	11.200							2.3000	4.9220
Low Limit	9.1000							1.8800	4.0200

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.35971	F .18158	.18461	.18781	.35523	.35950	.09387	.47091	.09911
Stddev	.00215	.00038	.00115	.00091	.00421	.01025	.00042	.00029	.00169
%RSD	.59815	.20670	.62246	.48613	1.1859	2.8511	.44809	.06155	1.7037

#1	.36123	.18132	.18542	.18846	.35821	.35225	.09417	.47112	.09792
#2	.35819	.18185	.18379	.18717	.35225	.36675	.09358	.47071	.10030

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.22000							
Low Limit		.18200							

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3202.3	61750.	6697.3
Stddev	2.6	115.	41.2
%RSD	.08034	.18639	.61507

#1	3204.1	61669.	6668.1
#2	3200.4	61831.	6726.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.00644	-.00118	.00866	.53542	-.00004	-.00392	42.546	.00014
Stddev	.00003	.00024	.00745	.00032	.00038	.00002	.00106	.019	.00000
%RSD	237.17	3.6665	629.74	3.6387	.07099	50.530	27.106	.04424	3.4236

#1	.00003	.00661	.00408	.00888	.53568	-.00003	-.00467	42.533	.00013
#2	-.00001	.00628	-.00645	.00843	.53515	-.00005	-.00317	42.560	.00014

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00111	.00063	.00218	.00166	.58935	.00508	20.288	1.3843	-.00144
Stddev	.00005	.00004	.00013	.00512	.03368	.00014	.010	.0020	.00042
%RSD	4.0570	6.5747	5.9658	307.68	5.7142	2.8508	.04717	.14549	29.306

#1	.00114	.00066	.00209	.00528	.56553	.00518	20.295	1.3829	-.00114
#2	.00108	.00061	.00227	-.00196	.61316	.00498	20.282	1.3857	-.00173

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	270.23	.00072	.00450	.00549	.27524	.00100	.00296	.58493	1.2518
Stddev	.72	.00019	.00051	.00117	.00371	.00025	.00301	.01321	.0283
%RSD	.26527	25.867	11.429	21.267	1.3475	24.626	101.52	2.2585	2.2585

#1	270.73	.00086	.00413	.00466	.27786	.00082	.00509	.59428	1.2717
#2	269.72	.00059	.00486	.00631	.27262	.00117	.00084	.57559	1.2318

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00042	.06119	-.00021	-.00042	-.00419	-.04120	-.00102	.00386	.00121
Stddev	.00036	.00050	.00002	.00029	.00143	.00682	.00079	.00042	.00067
%RSD	86.626	.80930	8.0490	68.377	34.164	16.549	77.659	10.942	55.513

#1	-.00016	.06154	-.00022	-.00062	-.00318	-.04603	-.00046	.00416	.00169
#2	-.00068	.06084	-.00019	-.00022	-.00520	-.03638	-.00159	.00357	.00074

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3217.8	61535.	6792.7
Stddev	4.3	72.	24.6
%RSD	.13302	.11635	.36265

#1	3214.8	61585.	6775.3
#2	3220.9	61484.	6810.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00033	.19395	.00219	.23603	.10625	-0.00004	-0.00774	24.534	.29080
Stddev	.00008	.00016	.00070	.00005	.00063	.00003	.00142	.068	.00117
%RSD	24.566	.08085	31.777	.02154	.59552	65.216	18.300	.27690	.40176

#1	-.00027	.19406	.00268	.23600	.10670	-.00002	-.00875	24.582	.29162
#2	-.00039	.19384	.00170	.23607	.10580	-.00006	-.00674	24.485	.28997

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00673	.01342	.82495	.13093	1.8642	.09083	1.6099	.20614	.00555
Stddev	.00028	.00019	.00375	.00266	.0228	.00141	.0087	.00042	.00020
%RSD	4.1491	1.4350	.45490	2.0339	1.2245	1.5486	.53840	.20450	3.5700

#1	.00692	.01329	.82230	.12905	1.8480	.08983	1.6160	.20644	.00569
#2	.00653	.01356	.82761	.13281	1.8803	.09182	1.6037	.20585	.00541

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	297.35	.03171	W 2.6224	.01446	5.7187	.01997	.01301	.48482	1.0375
Stddev	.21	.00078	.0151	.00222	.0191	.00243	.00062	.01894	.0405
%RSD	.07136	2.4557	.57487	15.363	.33392	12.154	4.7849	3.9057	3.9057

#1	297.50	.03226	2.6331	.01289	5.7322	.01826	.01345	.49821	1.0662
#2	297.20	.03116	2.6118	.01604	5.7052	.02169	.01257	.47143	1.0089

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00267	.09498	-.00345	-.00051	-.00281	-.00537	-.00069	7.4353	.00079
Stddev	.00010	.00094	.00007	.00016	.00185	.02546	.00005	.0341	.00127
%RSD	3.6515	.99185	1.8956	30.638	65.813	474.10	6.7976	.45838	160.89

#1	.00261	.09564	-.00340	-.00040	-.00412	.01263	-.00072	7.4594	.00169
#2	.00274	.09431	-.00349	-.00062	-.00150	-.02337	-.00065	7.4112	-.00011

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3274.5	63152.	6965.0
Stddev	7.2	279.	28.2
%RSD	.21956	.44157	.40464

#1	3279.6	62955.	6945.1
#2	3269.4	63349.	6985.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00018	1.5238	-0.00002	.01734	.03054	.00006	-0.00470	.57886	.00068
Stddev	.00056	.0052	.00379	.00036	.00016	.00006	.00098	.00007	.00017
%RSD	304.89	.34044	15748.	2.0653	.50861	100.88	20.827	.01164	24.467

#1	.00021	1.5275	.00266	.01759	.03043	.00002	-.00540	.57891	.00056
#2	-.00058	1.5202	-.00270	.01709	.03065	.00010	-.00401	.57881	.00080

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02292	.00365	.07951	.22764	.15735	.00087	.03878	.00568	.00113
Stddev	.00032	.00018	.00040	.00010	.05439	.00170	.00254	.00004	.00000
%RSD	1.4179	5.0021	.49818	.04377	34.565	196.24	6.5391	.79188	.29544

#1	.02269	.00352	.07979	.22757	.11889	.00207	.03699	.00565	.00113
#2	.02315	.00378	.07923	.22772	.19581	-.00034	.04058	.00571	.00113

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	284.48	.04798	.00157	.14271	.09788	.00010	.00959	.22585	.48332
Stddev	.27	.00008	.00161	.00323	.00586	.00218	.00317	.00642	.01375
%RSD	.09439	.16177	102.70	2.2631	5.9905	2131.6	33.045	2.8447	2.8447

#1	284.29	.04803	.00043	.14043	.09373	.00165	.01184	.22131	.47360
#2	284.67	.04792	.00270	.14499	.10202	-.00144	.00735	.23039	.49304

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00098	.00337	-.00238	.00028	.00067	-.03722	-.00100	.37382	.00420
Stddev	.00093	.00003	.00294	.00027	.00272	.01364	.00029	.00199	.00138
%RSD	95.566	.74510	123.79	93.998	405.53	36.635	28.673	.53188	32.789

#1	.00164	.00339	-.00030	.00010	.00259	-.04687	-.00121	.37523	.00517
#2	.00032	.00335	-.00446	.00047	-.00125	-.02758	-.00080	.37242	.00323

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3308.8	63663.	6947.1
Stddev	15.0	523.	25.8
%RSD	.45262	.82176	.37086

#1	3298.2	63293.	6965.4
#2	3319.4	64033.	6928.9

Sample Name: 280-69922-A-1-B SD@5 Acquired: 6/5/2015 10:39:34 Type: Unk

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment: 280016 TCLP 6010C Q4 (Pb Se)

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00071	.36399	.00168	.00463	.00736	.00089	.00001	.14114	.00091
Stddev	.00017	.00170	.00051	.00040	.00008	.00002	.00089	.00294	.00007
%RSD	23.909	.46750	30.245	8.6993	1.0795	2.1510	16400.	2.0803	7.4708

#1	.00059	.36519	.00132	.00491	.00742	.00087	.00063	.14322	.00096
#2	.00083	.36279	.00204	.00434	.00731	.00090	-.00062	.13906	.00087

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00593	.00178	.01978	.06574	.16806	.00457	.04615	.00232	.00121
Stddev	.00016	.00041	.00005	.00114	.06222	.00017	.00934	.00002	.00006
%RSD	2.7100	22.792	.24235	1.7306	37.020	3.6232	20.234	1.0118	5.0733

#1	.00582	.00207	.01982	.06494	.12407	.00469	.03955	.00234	.00125
#2	.00605	.00149	.01975	.06655	.21205	.00446	.05276	.00231	.00116

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	62.865	.01204	.00049	.03440	.02185	.00001	.00962	.04949	.10591
Stddev	.586	.00003	.00133	.00111	.00060	.00270	.00115	.00904	.01935
%RSD	.93217	.24479	271.22	3.2375	2.7406	28948.	12.007	18.266	18.266

#1	62.451	.01202	-.00045	.03362	.02227	.00192	.00880	.05588	.11959
#2	63.280	.01207	.00143	.03519	.02143	-.00190	.01043	.04310	.09223

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00466	.00163	-.00076	.00099	.00570	-.01284	.00083	.08110	.00394
Stddev	.00009	.00009	.00078	.00012	.00067	.01730	.00085	.00070	.00078
%RSD	1.8898	5.3463	102.79	12.599	11.716	134.70	102.26	.86040	19.760

#1	.00472	.00156	-.00131	.00090	.00522	-.02508	.00023	.08061	.00449
#2	.00459	.00169	-.00021	.00108	.00617	-.00061	.00144	.08159	.00339

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3406.2	67208.	7083.1
Stddev	10.2	265.	37.0
%RSD	.30063	.39399	.52248

#1	3413.4	67021.	7109.3
#2	3398.9	67396.	7057.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .19254	1.8026	.71651	.18933	2.1983	.00891	F .36805	9.3590	.20429
Stddev	.00036	.0029	.00569	.00082	.0021	.00001	.00109	.0217	.00079
%RSD	.18461	.15788	.79453	.43187	.09432	.08554	.29516	.23166	.38443

#1	.19229	1.8046	.72054	.18990	2.1998	.00892	.36881	9.3436	.20373
#2	.19279	1.8006	.71249	.18875	2.1969	.00891	.36728	9.3743	.20484

Check ?	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass				
High Limit	.10000						.10000		
Low Limit	-.01000						-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.11258	W .93544	.48180	.37604	9.5151	.18666	8.4337	.09443	.18679
Stddev	.00034	.00272	.00464	.00316	.0648	.00219	.0289	.00005	.00026
%RSD	.30180	.29085	.96398	.83986	.68099	1.1739	.34216	.05254	.14026

#1	.11234	.93736	.48509	.37380	9.4693	.18821	8.4541	.09439	.18697
#2	.11282	.93351	.47852	.37827	9.5609	.18511	8.4133	.09446	.18660

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	280.14	.13559	1.8085	1.1187	.46237	.09959	.55945	1.9876	4.2535
Stddev	.25	.00020	.0099	.0007	.00293	.00319	.00266	.0309	.0662
%RSD	.08919	.14979	.54940	.06256	.63383	3.2034	.47545	1.5555	1.5555

#1	279.96	.13545	1.8155	1.1192	.46444	.09733	.55757	1.9658	4.2068
#2	280.32	.13573	1.8015	1.1183	.46030	.10185	.56133	2.0095	4.3003

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.35068	.18077	.17719	.18203	.34547	.36106	.09002	.79296	.09786
Stddev	.00249	.00044	.00149	.00032	.00077	.01414	.00023	.00586	.00027
%RSD	.70948	.24263	.84061	.17567	.22201	3.9175	.25432	.73889	.27953

#1	.34892	.18108	.17613	.18225	.34601	.35105	.09019	.78882	.09767
#2	.35244	.18046	.17824	.18180	.34492	.37106	.08986	.79710	.09805

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3288.1	64230.	6940.0
Stddev	5.1	125.	27.7
%RSD	.15480	.19506	.39926

#1	3291.7	64318.	6959.6
#2	3284.5	64141.	6920.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .19488	1.8245	.72404	.19168	2.2229	.00903	F .36880	9.4440	.20808
Stddev	.00102	.0045	.00716	.00323	.0014	.00006	.00517	.0017	.00463
%RSD	.52464	.24897	.98898	1.6857	.06108	.69108	1.4021	.01812	2.2261

#1	.19416	1.8213	.72910	.19396	2.2219	.00899	.37246	9.4428	.21135
#2	.19560	1.8277	.71897	.18939	2.2239	.00908	.36515	9.4452	.20480

Check ?	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass				
High Limit	.10000						.10000		
Low Limit	-.01000						-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.11352	W .93102	.48752	.37496	9.6463	.19094	8.5552	.09530	.18867
Stddev	.00246	.00954	.00365	.00164	.0926	.00004	.0339	.00019	.00157
%RSD	2.1701	1.0247	.74861	.43709	.96021	.02000	.39626	.20213	.83408

#1	.11526	.93776	.48494	.37612	9.7117	.19097	8.5312	.09544	.18978
#2	.11178	.92427	.49011	.37380	9.5808	.19091	8.5792	.09517	.18756

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	283.38	.13693	1.8337	1.1311	.46681	.10309	.55912	2.0296	4.3434
Stddev	.66	.00218	.0410	.0208	.01390	.00125	.01486	.0189	.0405
%RSD	.23183	1.5885	2.2367	1.8372	2.9773	1.2085	2.6580	.93215	.93215

#1	282.92	.13847	1.8627	1.1458	.47664	.10397	.56963	2.0430	4.3721
#2	283.85	.13539	1.8047	1.1164	.45698	.10221	.54861	2.0163	4.3148

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.35330	.18279	.17838	.18358	.35123	.38133	.09073	.80199	.10034
Stddev	.00560	.00030	.00043	.00029	.00667	.02409	.00021	.00213	.00066
%RSD	1.5855	.16449	.24192	.15680	1.8999	6.3162	.23009	.26596	.65646

#1	.35726	.18257	.17869	.18378	.35595	.36430	.09058	.80350	.10081
#2	.34934	.18300	.17808	.18338	.34651	.39837	.09087	.80048	.09988

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3238.1	63388.	6905.3
Stddev	34.7	359.	45.2
%RSD	1.0712	.56689	.65437

#1	3262.6	63134.	6873.3
#2	3213.6	63642.	6937.2

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04732	2.4502	W 2.6894	.18552	.10971	.12663	.04686	-.00554	19.058
Stddev	.00043	.0030	.0250	.00142	.00114	.00011	.00002	.00116	.083
%RSD	.89903	.12233	.93000	.76774	1.0353	.08384	.04571	20.910	.43348

#1	.04762	2.4481	2.7071	.18452	.11052	.12671	.04687	-.00636	19.000
#2	.04702	2.4524	2.6717	.18653	.10891	.12656	.04684	-.00472	19.116

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			500.00						
Low Limit			3.2000						

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04903	.07168	.05057	.12893	1.1694	19.565	.09998	17.778	.05248
Stddev	.00005	.00010	.00038	.00097	.0050	.048	.00132	.066	.00003
%RSD	.09742	.14306	.74830	.74871	.42583	.24704	1.3215	.37030	.06250

#1	.04900	.07160	.05083	.12961	1.1729	19.531	.09904	17.824	.05246
#2	.04907	.07175	.05030	.12825	1.1658	19.600	.10091	17.731	.05251

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04792	316.61	.09631	1.8983	.24131	.09966	.09674	.19951	4.9560
Stddev	.00046	1.30	.00000	.0137	.00304	.00106	.00360	.00248	.0243
%RSD	.95581	.41175	.00009	.72129	1.2584	1.0655	3.7182	1.2412	.49045

#1	.04760	315.69	.09631	1.9080	.23916	.09891	.09928	.20126	4.9388
#2	.04824	317.54	.09631	1.8886	.24345	.10041	.09420	.19776	4.9731

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.606	.09374	.05172	.18835	.04708	.17749	.45346	.04646	.58276
Stddev	.052	.00120	.00020	.00073	.00018	.00029	.00810	.00036	.00307
%RSD	.49045	1.2808	.39076	.38920	.38025	.16611	1.7873	.77060	.52702

#1	10.569	.09289	.05157	.18887	.04695	.17770	.45919	.04621	.58059
#2	10.643	.09458	.05186	.18783	.04721	.17728	.44773	.04672	.58493

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.05456
Stddev	.00037
%RSD	.67381

#1	.05482
#2	.05430

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69922-A-1-B PDS Acquired: 6/5/2015 10:47:30 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 280016 TCLP 6010C Q4 (Pb Se)

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	3195.1	62100.	6781.3
Stddev	35.1	299.	31.1
%RSD	1.0977	.48133	.45850
#1	3219.9	62312.	6803.3
#2	3170.3	61889.	6759.3

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00285	48.254	-0.00178	-0.00076	-0.00027	.00016	1.0103	.04069	-0.00040	-0.00091	.00080	.00397	48.306
Stddev	.00014	.421	.00105	.00053	.00027	.00000	.0081	.00052	.00019	.00026	.00002	.00013	1.438
%RSD	5.0811	.87348	59.007	70.051	101.46	2.2380	.80397	1.2746	47.657	28.423	2.3550	3.2108	2.9764

#1	.00275	47.956	-0.00252	-0.00038	-0.00008	.00016	1.0046	.04032	-0.00027	-0.00073	.00081	.00388	47.289
#2	.00295	48.552	-0.00103	-0.00113	-0.00046	.00016	1.0161	.04105	-0.00054	-0.00109	.00079	.00406	49.322

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.16951	.00280	-0.01749	-0.00113	-0.00028	247.31	.00170	.00324	.00090	4.8958	-0.00942	-0.00004	-0.02764
Stddev	.07611	.00011	.00287	.00006	.00019	2.29	.00054	.00200	.00115	.0489	.00421	.00115	.01281
%RSD	44.902	4.0698	16.382	4.9746	70.212	.92395	31.994	61.570	127.55	.99801	44.696	2874.9	46.333

#1	.11569	.00289	-0.01952	-0.00109	-0.00014	245.69	.00132	.00183	.00009	4.8612	-0.01239	-0.00085	-0.03670
#2	.22333	.00272	-0.01547	-0.00116	-0.00041	248.92	.00209	.00465	.00171	4.9303	-0.00644	.00077	-0.01859

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.05916	-0.00259	.00038	4.8716	-0.01902	.00239	10.275	.00318	.00182	.09648
Stddev	.02741	.00006	.00003	.0145	.00011	.00104	.029	.00079	.00017	.01272
%RSD	46.333	2.2563	9.1182	.29805	.57994	43.778	.27839	24.964	9.4318	13.179

#1	-0.07854	-0.00255	.00041	4.8819	-0.01894	.00165	10.295	.00262	.00170	.08749
#2	-0.03978	-0.00264	.00036	4.8613	-0.01909	.00313	10.254	.00374	.00194	.10547

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3224.7	63071.	6668.1
Stddev	2.2	150.	27.4
%RSD	.06758	.23804	.41058

#1	3223.1	62965.	6687.4
#2	3226.2	63177.	6648.7

Sample Name: CCV-3305006 Acquired: 6/5/2015 10:53:32 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50123	.51380	.99502	.49821	.49446	.49062	-.00283	5.0103	.49853	.51258	.50375	.50366	2.4680
Stddev	.00058	.00212	.00211	.00365	.00500	.00617	.00063	.0677	.00160	.00139	.00251	.00043	.0211
%RSD	.11498	.41336	.21250	.73208	1.0105	1.2579	22.462	1.3517	.32074	.27038	.49880	.08441	.85584

#1	.50082	.51230	.99352	.49563	.49093	.48626	-.00238	4.9624	.49740	.51160	.50197	.50396	2.4531
#2	.50164	.51531	.99651	.50078	.49800	.49498	-.00328	5.0582	.49966	.51356	.50553	.50336	2.4830

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.323	1.0077	19.896	.49550	.49614	5.1107	.50958	.97824	1.0097	-.00457	1.0031	1.0045	4.9557
Stddev	.556	.0092	.047	.00045	.00082	.0386	.00198	.00455	.0058	.00619	.0013	.0052	.0734
%RSD	1.1053	.91763	.23488	.09123	.16574	.75626	.38816	.46553	.57782	135.41	.13277	.51268	1.4803

#1	49.929	1.0011	19.929	.49582	.49672	5.0834	.50818	.97502	1.0056	-.00895	1.0021	1.0008	4.9038
#2	50.716	1.0142	19.863	.49518	.49556	5.1381	.51097	.98146	1.0138	-.00019	1.0040	1.0081	5.0076

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.605	.99944	.49511	-.00414	.49077	1.0412	-.02194	.49109	.49432	.49220
Stddev	.157	.00124	.00720	.00177	.00007	.0042	.04152	.00542	.00013	.00948
%RSD	1.4803	.12380	1.4542	42.682	.01338	.40142	189.24	1.1037	.02549	1.9262

#1	10.494	.99856	.49002	-.00289	.49082	1.0382	-.05129	.49492	.49423	.48549
#2	10.716	1.0003	.50020	-.00538	.49073	1.0441	.00742	.48725	.49441	.49890

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3224.2	63565.	6401.6
Stddev	7.6	94.	63.1
%RSD	.23476	.14759	.98562

#1	3218.8	63499.	6446.2
#2	3229.5	63631.	6357.0

Sample Name: CCB Acquired: 6/5/2015 10:56:00 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0017	-0.0004	-0.00077	.00036	.00010	-0.00011	-0.00050	-0.00153	-0.00006	.00012	.00017	.00116
Stddev	.00027	.00013	.00127	.00016	.00027	.00004	.00394	.00162	.00009	.00020	.00004	.00001
%RSD	156.33	328.55	165.73	43.951	263.17	32.335	781.25	106.12	138.33	167.63	22.374	1.2837

#1	-0.00036	.00005	-.00166	.00048	.00030	-.00009	-.00329	-.00267	.00000	-.00002	.00019	.00115
#2	.00002	-.00013	.00013	.00025	-.00009	-.00014	.00228	-.00038	-.00013	.00026	.00014	.00117

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00093	.13037	-0.00150	-0.00071	.00001	.00006	.07991	-0.00016	-0.00203	-0.00009	-0.00071	.00398
Stddev	.00002	.04231	.00174	.00357	.00004	.00040	.00375	.00039	.00169	.00105	.00158	.00029
%RSD	2.4327	32.453	116.08	502.23	374.10	664.38	4.6953	248.44	83.176	1119.9	223.85	7.2980

#1	.00095	.10045	-.00274	-.00323	.00003	-.00022	.08257	-.00043	-.00083	-.00084	-.00183	.00419
#2	.00092	.16029	-.00027	.00181	-.00002	.00034	.07726	.00012	-.00322	.00065	.00041	.00378

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F.00869	-0.01950	-0.04172	-0.00055	.00014	.00034	-0.00044	.00319	-0.04870	-0.00099	.00075	.00199
Stddev	.00265	.00797	.01705	.00031	.00007	.00154	.00012	.00105	.04165	.00037	.00072	.00020
%RSD	30.535	40.862	40.862	56.834	47.646	458.32	27.182	32.986	85.527	36.711	96.285	9.8355

#1	.00682	-.01386	-.02967	-.00033	.00010	.00142	-.00052	.00244	-.07815	-.00125	.00024	.00212
#2	.01057	-.02513	-.05378	-.00077	.00019	-.00075	-.00035	.00393	-.01925	-.00074	.00125	.00185

Check ?	Chk Fail	Chk Pass										
High Limit	.00500											
Low Limit	-.00500											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3289.2	64769.	6421.9
Stddev	14.6	125.	7.6
%RSD	.44322	.19232	.11831

#1	3299.5	64857.	6427.3
#2	3278.9	64681.	6416.5

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01002	.10818	.01271	.10099	.00965	.00089	.11151	.21667	.00515	.01062	.01073	.01618
Stddev	.00027	.00015	.00360	.00008	.00043	.00003	.00194	.00207	.00013	.00032	.00008	.00005
%RSD	2.7423	.13511	28.291	.08413	4.4418	3.2804	1.7432	.95645	2.4735	3.0155	.78666	.28485

#1	.00982	.10807	.01017	.10105	.00995	.00087	.11289	.21520	.00524	.01085	.01079	.01615
#2	.01021	.10828	.01526	.10093	.00934	.00091	.11014	.21813	.00506	.01040	.01067	.01622

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10302	3.2005	.01180	.21198	.01054	.01951	1.1191	.04147	2.8695	.01042	-.00281	.01034
Stddev	.00378	.0118	.00043	.00214	.00001	.00003	.0052	.00065	.0052	.00124	.00169	.00310
%RSD	3.6707	.36884	3.6160	1.0100	.14058	.13842	.46311	1.5724	.18203	11.933	60.188	30.014

#1	.10034	3.2088	.01210	.21047	.01055	.01953	1.1154	.04101	2.8658	.01130	-.00401	.01253
#2	.10569	3.1921	.01149	.21350	.01053	.01949	1.1227	.04193	2.8732	.00954	-.00161	.00814

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .02383	.50121	1.0726	.10132	.01033	.01420	.00960	.01849	.05674	.00986	.02239	.01687
Stddev	.00234	.00679	.0145	.00003	.00013	.00033	.00003	.00268	.01902	.00044	.00054	.00175
%RSD	9.8203	1.3548	1.3548	.02777	1.2747	2.2911	.32448	14.479	33.529	4.4506	2.4053	10.349

#1	.02548	.49641	1.0623	.10130	.01024	.01443	.00958	.02038	.04329	.00955	.02201	.01811
#2	.02217	.50601	1.0829	.10134	.01042	.01397	.00962	.01659	.07019	.01017	.02277	.01564

Check ?	Chk Fail	Chk Pass										
Value	.01500											
Range	30.000%											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3314.3	65795.	6573.5
Stddev	12.6	23.	40.3
%RSD	.37960	.03562	.61301

#1	3323.2	65778.	6602.0
#2	3305.4	65811.	6545.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0014	.02898	-0.00049	.01760	.00100	-0.0011	-0.00153	F .23582	.00003
Stddev	.00034	.00045	.00173	.00032	.00037	.00007	.00119	.00326	.00031
%RSD	245.20	1.5555	357.26	1.8015	36.726	69.311	77.885	1.3803	1001.4

#1	.00010	.02930	.00074	.01782	.00126	-.00016	-.00069	.23812	-.00019
#2	-.00038	.02866	-.00171	.01737	.00074	-.00005	-.00238	.23352	.00025

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit								.20000	
Low Limit								-.20000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	.00113	.00183	.03645	.14273	.00160	.09340	.00081	-0.0008
Stddev	.00025	.00005	.00033	.00284	.05421	.00049	.00342	.00001	.00001
%RSD	238.93	4.5525	18.093	7.8006	37.978	30.862	3.6612	1.3248	17.060

#1	-.00007	.00109	.00206	.03444	.10440	.00125	.09582	.00082	-.00007
#2	.00028	.00117	.00160	.03846	.18106	.00195	.09098	.00081	-.00010

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18309	.00041	.00918	.00138	.00069	.00037	.00571	.09818	.21011
Stddev	.00338	.00011	.00166	.00061	.00039	.00015	.00747	.01099	.02352
%RSD	1.8454	27.132	18.086	44.033	55.566	38.935	130.88	11.193	11.193

#1	.18070	.00033	.01036	.00181	.00042	.00048	.01099	.10595	.22674
#2	.18548	.00049	.00801	.00095	.00097	.00027	.00043	.09041	.19348

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00784	.00061	.00039	.00046	-.00054	-.01317	-.00004	.00349	.00321
Stddev	.00019	.00003	.00174	.00035	.00198	.00439	.00072	.00099	.00085
%RSD	2.4114	5.0819	442.32	76.461	366.68	33.295	1710.2	28.362	26.359

#1	.00798	.00063	-.00084	.00021	.00086	-.01007	-.00055	.00279	.00381
#2	.00771	.00059	.00162	.00071	-.00194	-.01627	.00047	.00419	.00261

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3307.6	65743.	6593.6
Stddev	4.0	227.	21.8
%RSD	.12040	.34500	.33123

#1	3310.4	65583.	6609.0
#2	3304.8	65903.	6578.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04829	1.9461	.95324	F 1.1095	1.9313	.04782	1.9949	47.834	.09737
Stddev	.00002	.0040	.00389	.0023	.0081	.00018	.0015	.098	.00008
%RSD	.04418	.20497	.40789	.20574	.41735	.37084	.07456	.20573	.07823

#1	.04827	1.9432	.95049	1.1079	1.9256	.04769	1.9939	47.764	.09732
#2	.04830	1.9489	.95599	1.1111	1.9370	.04794	1.9960	47.904	.09743

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit				1.1000					
Low Limit				.81000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48233	F .18852	.24628	.98027	49.538	.98969	47.172	.47707	.99212
Stddev	.00046	.00010	.00217	.00167	.241	.00523	.033	.00092	.00211
%RSD	.09606	.05339	.87954	.17061	.48627	.52833	.07073	.19239	.21306

#1	.48201	.18859	.24475	.98145	49.368	.98599	47.196	.47772	.99063
#2	.48266	.18844	.24781	.97909	49.709	.99339	47.149	.47642	.99362

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05700							
Low Limit		.04350							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.773	.47689	9.7406	.48820	1.9318	.49139	1.9289	2.6518	5.6749
Stddev	.273	.00007	.0239	.00248	.0025	.00197	.0193	.0008	.0016
%RSD	.52682	.01494	.24550	.50876	.12820	.40068	1.0019	.02881	.02881

#1	51.966	.47694	9.7237	.48644	1.9336	.49278	1.9425	2.6523	5.6760
#2	51.580	.47684	9.7575	.48996	1.9301	.49000	1.9152	2.6513	5.6737

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9245	.96620	.94119	.95023	1.9485	2.0215	.47632	.46531	.50827
Stddev	.0035	.00550	.00379	.00050	.0018	.0094	.00111	.00192	.00026
%RSD	.18224	.56884	.40259	.05305	.09024	.46421	.23240	.41300	.05071

#1	1.9270	.96232	.94387	.95059	1.9473	2.0281	.47710	.46667	.50809
#2	1.9220	.97009	.93851	.94988	1.9497	2.0148	.47554	.46395	.50845

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3139.4	62098.	6437.1
Stddev	4.2	208.	12.9
%RSD	.13382	.33505	.20001

#1	3142.4	61951.	6446.2
#2	3136.4	62245.	6428.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00031	1.4626	.00102	.01398	.04044	.00004	-.00219	F 1271.1	-.00325
Stddev	.00041	.0026	.00116	.00082	.00004	.00000	.00309	26.6	.00006
%RSD	132.03	.17767	114.66	5.8678	.10710	5.7925	141.34	2.0906	1.9343

#1	.00061	1.4644	.00184	.01340	.04047	.00004	.00000	1289.9	-.00330
#2	.00002	1.4607	.00019	.01456	.04041	.00004	-.00438	1252.4	-.00321

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit								1000.0	
Low Limit								-.10000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00075	.01232	.00642	4.4860	.63360	.01443	1.5152	.04649	-.00244
Stddev	.00040	.00025	.00008	.0764	.06381	.00006	.0011	.00016	.00031
%RSD	53.077	2.0551	1.2251	1.7023	10.071	.39891	.07217	.34309	12.873

#1	.00103	.01250	.00648	4.5400	.58848	.01439	1.5144	.04661	-.00222
#2	.00047	.01214	.00636	4.4320	.67872	.01447	1.5160	.04638	-.00266

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.840	.00624	W 2.0266	.00848	1.6310	.02655	.01730	1.2664	2.7101
Stddev	.001	.00019	.0268	.00020	.0168	.00083	.00286	.0276	.0590
%RSD	.00736	3.0288	1.3214	2.4097	1.0311	3.1349	16.519	2.1781	2.1781

#1	14.839	.00637	2.0077	.00863	1.6191	.02714	.01933	1.2859	2.7519
#2	14.841	.00610	2.0456	.00834	1.6429	.02596	.01528	1.2469	2.6684

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00601	W 6.9710	.00400	.08332	W -.01327	W -.05631	.00856	.01037	.00371
Stddev	.00003	.0522	.00163	.00134	.00096	.00083	.00059	.00040	.00467
%RSD	.43166	.74903	40.772	1.6113	7.2110	1.4701	6.9202	3.8220	125.78

#1	.00603	7.0079	.00516	.08237	-.01395	-.05689	.00898	.01009	.00041
#2	.00599	6.9341	.00285	.08427	-.01259	-.05572	.00814	.01065	.00702

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit		5.0000			5.0000	45.000			
Low Limit		-.01000			-.01000	-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2915.1	57270.	6272.4
Stddev	.8	180.	80.6
%RSD	.02676	.31497	1.2851

#1	2915.6	57143.	6215.4
#2	2914.5	57398.	6329.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00019	.32921	-.00016	.00149	.00780	.00000	-.00386	265.46	-.00054
Stddev	.00053	.00004	.00296	.00081	.00058	.0000	.00152	4.24	.00017
%RSD	278.61	.01178	1862.8	54.494	7.4357	1555.6	39.448	1.5979	31.327

#1	-.00018	.32924	.00193	.00206	.00739	-.00002	-.00494	262.46	-.00066
#2	.00056	.32919	-.00225	.00091	.00821	.00002	-.00278	268.46	-.00042

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	.00311	.00281	.93547	.20795	.00256	.33881	.00991	-.00312
Stddev	.00029	.00024	.00020	.01405	.03154	.00152	.00166	.00001	.00015
%RSD	281.98	7.5720	7.2475	1.5018	15.168	59.441	.48892	.10164	4.8893

#1	-.00030	.00294	.00295	.92554	.23025	.00148	.33998	.00991	-.00323
#2	.00010	.00327	.00267	.94541	.18564	.00364	.33764	.00992	-.00301

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.8411	.00155	.39748	.00984	.28548	.00525	.01103	.23351	.49970
Stddev	.0473	.00037	.00199	.00031	.00630	.00098	.00180	.02313	.04949
%RSD	1.6633	23.748	.50094	3.1665	2.2074	18.657	16.314	9.9044	9.9044

#1	2.8076	.00181	.39608	.00962	.28994	.00456	.01230	.21715	.46471
#2	2.8745	.00129	.39889	.01006	.28103	.00595	.00976	.24986	.53470

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00479	1.4272	.00088	.01652	-.00659	-.02731	.00104	.00472	.00049
Stddev	.00046	.0253	.00160	.00083	.00332	.02743	.00020	.00027	.00068
%RSD	9.6317	1.7715	181.82	5.0505	50.390	100.44	18.905	5.6195	138.23

#1	.00511	1.4093	-.00025	.01711	-.00893	-.00791	.00090	.00491	.00001
#2	.00446	1.4451	.00201	.01593	-.00424	-.04671	.00118	.00453	.00098

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3114.6	60924.	6385.1
Stddev	8.1	130.	57.3
%RSD	.26028	.21337	.89663

#1	3120.3	60832.	6425.6
#2	3108.9	61016.	6344.6

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05259	5.0956	1.0004	.93208	2.0148	.04593	F 1.9686	F 1562.8	.09630
Stddev	.00095	.1225	.0083	.00085	.0330	.00066	.0045	11.7	.00042
%RSD	1.8115	2.4036	.83123	.09109	1.6396	1.4374	.22769	.75050	.44050

#1	.05326	5.1822	1.0063	.93148	2.0381	.04639	1.9654	1571.1	.09600
#2	.05192	5.0090	.99450	.93268	1.9914	.04546	1.9718	1554.5	.09660

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass					
High Limit							.10000	1000.0	
Low Limit							-.10000	-.10000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.45027	W .17393	.24986	5.0967	53.849	1.0637	45.335	.54932	.95483
Stddev	.00215	.00030	.00055	.0935	.719	.0127	.184	.00196	.00417
%RSD	.47712	.16984	.22086	1.8346	1.3359	1.1962	.40539	.35627	.43650

#1	.45179	.17414	.25025	5.1628	54.357	1.0727	45.465	.55071	.95778
#2	.44875	.17373	.24947	5.0306	53.340	1.0547	45.205	.54794	.95188

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	71.322	.45127	W 11.821	.45173	4.3384	.51979	1.9366	3.6318	7.7722
Stddev	.720	.00118	.010	.00012	.0060	.00295	.0018	.0435	.0931
%RSD	1.0093	.26227	.08062	.02603	.13776	.56803	.09167	1.1985	1.1985

#1	71.831	.45211	11.815	.45181	4.3342	.52188	1.9379	3.6626	7.8380
#2	70.813	.45044	11.828	.45165	4.3426	.51770	1.9354	3.6011	7.7063

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.7659	W 8.7518	.95362	1.0289	1.6310	1.9292	.48898	.45270	.50668
Stddev	.0027	.0714	.00212	.0018	.0035	.0343	.00410	.00277	.00536
%RSD	.15476	.81565	.22283	.17359	.21656	1.7767	.83852	.61207	1.0570

#1	1.7678	8.7014	.95512	1.0302	1.6335	1.9535	.49188	.45466	.51046
#2	1.7639	8.8023	.95211	1.0276	1.6285	1.9050	.48608	.45074	.50289

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		5.0000							
Low Limit		-.01000							

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2839.9	55332.	6225.2
Stddev	2.6	148.	49.0
%RSD	.09192	.26808	.78727

#1	2838.0	55227.	6190.5
#2	2841.7	55437.	6259.8

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05161	5.3421	.99596	.91902	2.0135	.04558	F 1.9590	F 1683.2	.09558
Stddev	.00007	.0197	.00263	.00049	.0319	.00098	.0059	65.4	.00023
%RSD	.12719	.36899	.26380	.05357	1.5827	2.1562	.29865	3.8870	.24218

#1	.05166	5.3282	.99782	.91867	2.0360	.04627	1.9548	1729.5	.09574
#2	.05156	5.3561	.99410	.91937	1.9909	.04488	1.9631	1637.0	.09541

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass					
High Limit							.10000	1000.0	
Low Limit							-.10000	-.10000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.44862	W .17353	.24857	5.4516	53.682	1.0573	44.460	.52151	.95042
Stddev	.00056	.00018	.00110	.1036	.789	.0190	.197	.00137	.00096
%RSD	.12584	.10120	.44218	1.9007	1.4699	1.8001	.44361	.26220	.10104

#1	.44902	.17366	.24780	5.5248	54.240	1.0707	44.321	.52054	.95110
#2	.44822	.17341	.24935	5.3783	53.124	1.0438	44.600	.52248	.94974

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	72.958	.45024	W 11.916	.45173	4.0789	.52668	1.9629	3.8775	8.2979
Stddev	1.274	.00113	.012	.00244	.0060	.00359	.0114	.1090	.2334
%RSD	1.7465	.25187	.09783	.53989	.14632	.68082	.58191	2.8123	2.8123

#1	73.859	.45104	11.908	.45346	4.0746	.52922	1.9548	3.9546	8.4629
#2	72.057	.44944	11.924	.45001	4.0831	.52415	1.9710	3.8004	8.1329

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.7758	W 9.7691	.94341	1.0301	1.6420	1.9316	.48286	.45093	.49479
Stddev	.0111	.1347	.00415	.0028	.0135	.0141	.00071	.00356	.01320
%RSD	.62600	1.3787	.43937	.27041	.82371	.72734	.14636	.78935	2.6669

#1	1.7679	9.8644	.94048	1.0281	1.6324	1.9216	.48236	.44841	.50412
#2	1.7836	9.6739	.94634	1.0320	1.6515	1.9415	.48336	.45345	.48546

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		5.0000							
Low Limit		-.01000							

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2826.7	55349.	6221.0
Stddev	.8	103.	62.5
%RSD	.02956	.18677	1.0039

#1	2827.3	55422.	6176.9
#2	2826.1	55276.	6265.2

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05064	2.2397	W 2.6791	.19610	.10554	.13745	.04590	-.00153	F 1258.1
Stddev	.00043	.0010	.0476	.00400	.00059	.00306	.00095	.00254	12.2
%RSD	.84857	.04284	1.7773	2.0396	.56113	2.2295	2.0602	165.81	.97129

#1	.05034	2.2390	2.7127	.19893	.10512	.13962	.04657	.00026	1266.8
#2	.05095	2.2404	2.6454	.19327	.10596	.13529	.04523	-.00333	1249.5

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Fail				
High Limit			500.00						1000.0
Low Limit			3.2000						-.10000

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04699	.04582	.05370	.05417	5.2021	21.527	.11872	18.566	.09181
Stddev	.00092	.00008	.00101	.00063	.1058	.398	.00063	.016	.00005
%RSD	1.9601	.17580	1.8872	1.1547	2.0330	1.8489	.53412	.08560	.05479

#1	.04634	.04577	.05298	.05461	5.2768	21.808	.11827	18.555	.09185
#2	.04764	.04588	.05441	.05373	5.1273	21.245	.11917	18.577	.09178

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04412	35.517	.05054	W 3.9214	.09736	1.5785	.12825	.20841	6.0983
Stddev	.00024	.707	.00020	.0291	.00194	.0100	.00184	.00026	.1149
%RSD	.54836	1.9896	.40280	.74222	1.9897	.63302	1.4351	.12277	1.8838

#1	.04429	36.017	.05039	3.9008	.09873	1.5715	.12694	.20823	6.1795
#2	.04394	35.018	.05068	3.9420	.09599	1.5856	.12955	.20859	6.0171

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				2.0000					
Low Limit				-1.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.050	.09638	W 6.9361	.19260	.12878	.15387	.47960	.05504	.19529
Stddev	.246	.00027	.1371	.00074	.00051	.00084	.00363	.00035	.00095
%RSD	1.8838	.28506	1.9767	.38201	.39784	.54905	.75624	.64404	.48753

#1	13.224	.09658	7.0331	.19208	.12842	.15327	.47703	.05479	.19596
#2	12.877	.09619	6.8392	.19312	.12915	.15447	.48216	.05529	.19461

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			5.0000						
Low Limit			-.01000						

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.05739
Stddev	.00091
%RSD	1.5911

#1	.05803
#2	.05674

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-70015-A-1-A PDS Acquired: 6/5/2015 11:18:56 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 279902 SOIL 6010C (Fe)

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2915.9	57086.	6300.2
Stddev	1.6	4.	62.3
%RSD	.05491	.00679	.98883
#1	2914.8	57084.	6256.1
#2	2917.1	57089.	6344.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0037	1.2065	-0.0261	.02010	.07592	-0.0008	-0.00086	F 1945.0	W -0.0530
Stddev	.00018	.0012	.00217	.00017	.00279	.00003	.00201	67.9	.00013
%RSD	48.582	.09651	83.066	.83637	3.6768	43.124	233.01	3.4928	2.3844

#1	-0.0024	1.2073	-0.0108	.01998	.07789	-0.0005	.00056	1993.0	-0.0539
#2	-0.0049	1.2057	-0.0415	.02022	.07394	-0.00010	-0.00229	1897.0	-0.0521

Check ?	Chk Pass	Chk Fail	Chk Warn						
High Limit								1000.0	2.0000
Low Limit								-1.0000	-0.0500

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00084	.01386	.00503	3.5458	.67219	.01852	2.0016	.08461	-0.0264
Stddev	.00019	.00018	.00127	.0880	.02351	.00049	.0239	.00106	.00036
%RSD	22.641	1.2805	25.347	2.4817	3.4976	2.6619	1.1954	1.2531	13.534

#1	.00071	.01398	.00593	3.6080	.68882	.01887	2.0185	.08536	-0.0239
#2	.00098	.01373	.00413	3.4836	.65557	.01817	1.9847	.08386	-0.0290

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.895	.00734	W 2.1699	.00312	2.3957	.04259	.01977	1.1766	2.5179
Stddev	.460	.00098	.0165	.00046	.0298	.00044	.00272	.0041	.0088
%RSD	2.0089	13.314	.76173	14.793	1.2445	1.0324	13.740	.34839	.34839

#1	23.220	.00804	2.1816	.00344	2.4168	.04290	.01785	1.1795	2.5241
#2	22.570	.00665	2.1582	.00279	2.3746	.04228	.02169	1.1737	2.5117

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00608	W 9.6178	.00360	.06946	W -.01155	-.04852	.00785	.00478	.00302
Stddev	.00108	.1342	.00049	.00011	.00393	.00692	.00015	.00053	.00174
%RSD	17.800	1.3951	13.607	.15905	34.033	14.259	1.9110	11.137	57.711

#1	.00684	9.7127	.00325	.06938	-.01434	-.05342	.00795	.00440	.00425
#2	.00531	9.5229	.00394	.06954	-.00877	-.04363	.00774	.00515	.00179

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		5.0000			5.0000				
Low Limit		-.01000			-.01000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2823.4	54985.	6170.5
Stddev	.0	184.	162.5
%RSD	.00044	.33420	2.6337

#1	2823.4	54855.	6055.6
#2	2823.4	55115.	6285.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00049	1.2765	-0.00159	.01713	.05898	-0.00003	.00049	F 2007.1	W -0.00535
Stddev	.00002	.0001	.00296	.00083	.00137	.00006	.00138	49.1	.00001
%RSD	3.9407	.00556	185.66	4.8176	2.3210	161.01	281.26	2.4443	.17477

#1	-0.00050	1.2765	.00050	.01772	.05994	-0.00007	-0.00049	2041.8	-0.00534
#2	-0.00048	1.2764	-.00368	.01655	.05801	.00000	.00147	1972.4	-0.00536

Check ?	Chk Pass	Chk Fail	Chk Warn						
High Limit								1000.0	2.0000
Low Limit								-.10000	-.00500

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00065	.01224	.00521	3.0026	.68374	.01903	1.3844	.04215	-0.00322
Stddev	.00003	.00003	.00032	.0585	.04103	.00071	.0208	.00032	.00064
%RSD	5.0645	.21085	6.0527	1.9467	6.0015	3.7056	1.5003	.74918	19.915

#1	.00063	.01226	.00499	3.0439	.71276	.01853	1.3697	.04193	-0.00367
#2	.00067	.01222	.00543	2.9612	.65473	.01953	1.3990	.04237	-0.00276

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.423	.00805	W 2.8199	.00214	1.8990	.04531	.02273	1.2185	2.6075
Stddev	.364	.00046	.0270	.00179	.0224	.00091	.00694	.0028	.0059
%RSD	1.5541	5.6675	.95743	83.573	1.1807	2.0112	30.545	.22728	.22728

#1	23.680	.00837	2.8008	.00088	1.8832	.04596	.01782	1.2204	2.6117
#2	23.165	.00772	2.8390	.00341	1.9149	.04467	.02764	1.2165	2.6033

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00743	W 10.716	.00188	.09404	W -.01233	-.04527	.00993	.04187	.00400
Stddev	.00038	.092	.00097	.00108	.00129	.02713	.00126	.00017	.00133
%RSD	5.1804	.86324	51.784	1.1502	10.466	59.924	12.690	.39979	33.397

#1	.00770	10.781	.00257	.09327	-.01324	-.02609	.00904	.04175	.00494
#2	.00716	10.650	.00119	.09480	-.01141	-.06446	.01082	.04198	.00305

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		5.0000			5.0000				
Low Limit		-.01000			-.01000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2816.7	55142.	6204.7
Stddev	6.6	108.	69.1
%RSD	.23548	.19572	1.1130

#1	2812.0	55218.	6155.9
#2	2821.4	55066.	6253.6

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00329	4.1321	.01578	.01267	.10916	.00022	-.00464	W 818.18	-.00020
Stddev	.00016	.0434	.00700	.00034	.00107	.00004	.00206	6.97	.00018
%RSD	4.9322	1.0497	44.321	2.6872	.98468	19.668	44.475	.85186	88.847

#1	.00341	4.1014	.02073	.01291	.10840	.00026	-.00610	813.25	-.00033
#2	.00318	4.1627	.01084	.01243	.10992	.00019	-.00318	823.11	-.00008

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								500.00	
Low Limit								-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00220	W .10547	.11502	9.3727	.61101	.01384	4.6100	.14622	-.00130
Stddev	.00030	.00037	.00024	.0531	.06312	.00007	.0013	.00003	.00029
%RSD	13.492	.34808	.20841	.56600	10.331	.49261	.02825	.01745	22.205

#1	.00199	.10573	.11485	9.3352	.65565	.01379	4.6091	.14620	-.00110
#2	.00241	.10521	.11519	9.4103	.56638	.01389	4.6110	.14624	-.00151

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.7773	.01090	W 3.0412	.27608	2.8216	.01682	.01138	2.1074	4.5098
Stddev	.0505	.00016	.0286	.00044	.0201	.00019	.00097	.0432	.0925
%RSD	.74482	1.4250	.93894	.15771	.71188	1.1042	8.4912	2.0518	2.0518

#1	6.7416	.01101	3.0614	.27638	2.8358	.01669	.01207	2.1380	4.5752
#2	6.8130	.01079	3.0210	.27577	2.8074	.01696	.01070	2.0768	4.4444

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01520	4.4741	.00416	.14066	-.00882	W -.05461	.02160	.31376	.00884
Stddev	.00104	.0279	.00097	.00161	.00010	.01129	.00064	.00549	.00015
%RSD	6.8601	.62252	23.420	1.1428	1.0824	20.677	2.9736	1.7497	1.7397

#1	.01593	4.4544	.00484	.14180	-.00889	-.04663	.02205	.31765	.00895
#2	.01446	4.4938	.00347	.13953	-.00875	-.06260	.02114	.30988	.00873

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2994.3	58703.	6426.2
Stddev	3.2	120.	23.0
%RSD	.10540	.20487	.35792

#1	2992.1	58618.	6442.4
#2	2996.5	58788.	6409.9

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00227	48.342	-0.0023	-0.00131	.00013	.00015	1.0132	.19781	-0.0038	-0.00127	.00082	.00408	48.414
Stddev	.00011	.275	.00046	.00144	.00025	.00007	.0110	.05415	.00034	.00002	.00044	.00008	.670
%RSD	5.0115	.56964	200.18	109.43	186.47	48.163	1.0874	27.373	89.559	1.1848	53.322	1.9546	1.3833

#1	.00235	48.537	-0.0055	-0.00233	-0.00004	.00010	1.0210	.23609	-0.0014	-0.00128	.00113	.00402	48.888
#2	.00219	48.148	.00010	-0.00030	.00031	.00020	1.0054	.15952	-0.0062	-0.00126	.00051	.00414	47.941

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19205	.00318	-0.02286	-0.00139	-0.00044	247.69	.00123	.00492	.00228	4.8997	-0.00931	.00145	-0.02256
Stddev	.00291	.00054	.00073	.00006	.00020	.82	.00023	.00276	.00044	.0391	.00501	.00109	.00068
%RSD	1.5127	16.895	3.1749	4.0106	45.391	.33212	18.496	56.122	19.330	.79876	53.849	75.439	2.9950

#1	.18999	.00280	-.02338	-.00135	-.00030	248.28	.00107	.00688	.00259	4.9274	-.01285	.00222	-.02304
#2	.19410	.00356	-.02235	-.00143	-.00058	247.11	.00139	.00297	.00197	4.8720	-.00576	.00067	-.02208

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.04827	-0.00350	.00132	4.8649	-0.01910	.00223	10.266	.00307	.00038	.09861
Stddev	.00145	.00137	.00009	.0116	.00011	.00039	.160	.00018	.00041	.00604
%RSD	2.9950	38.985	6.7694	.23900	.57581	17.635	1.5544	5.6999	107.73	6.1208

#1	-.04930	-.00447	.00138	4.8731	-.01917	.00195	10.153	.00320	.00067	.10288
#2	-.04725	-.00254	.00125	4.8567	-.01902	.00250	10.379	.00295	.00009	.09434

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3183.6	61826.	6489.9
Stddev	6.6	41.	4.3
%RSD	.20748	.06710	.06641

#1	3188.3	61855.	6493.0
#2	3179.0	61797.	6486.9

Sample Name: CCV-3305006 Acquired: 6/5/2015 11:35:09 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50089	.51137	.98380	.49366	.49485	.48683	-.00309	5.0035	.49537	.51035	.49676	.49701	2.4525
Stddev	.00131	.00358	.00602	.00109	.00021	.00072	.00321	.0004	.00061	.00044	.00050	.00110	.0140
%RSD	.26229	.70101	.61228	.22090	.04281	.14784	104.01	.00694	.12360	.08658	.10127	.22140	.56974

#1	.49996	.51391	.98806	.49443	.49500	.48632	-.00082	5.0032	.49494	.51004	.49640	.49779	2.4623
#2	.50182	.50884	.97954	.49289	.49470	.48734	-.00536	5.0037	.49581	.51066	.49712	.49623	2.4426

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.199	1.0055	19.883	.49868	.49008	5.2069	.50685	.97306	1.0027	.00626	.99556	.98779	4.9070
Stddev	.173	.0021	.001	.00066	.00089	.0051	.00013	.00284	.0008	.00522	.00338	.00557	.0733
%RSD	.34557	.20640	.00696	.13211	.18074	.09862	.02552	.29163	.07802	83.322	.33910	.56352	1.4932

#1	50.076	1.0040	19.884	.49822	.49071	5.2105	.50694	.97105	1.0033	.00995	.99317	.98385	4.9588
#2	50.321	1.0069	19.882	.49915	.48946	5.2033	.50676	.97506	1.0022	.00257	.99795	.99172	4.8552

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.501	.97995	.49267	-.00287	.49354	1.0215	.01491	.49611	.49428	.49919
Stddev	.157	.00432	.00076	.00133	.00005	.0096	.02837	.00626	.00283	.00578
%RSD	1.4932	.44127	.15330	46.197	.00946	.93693	190.28	1.2623	.57263	1.1586

#1	10.612	.97690	.49213	-.00193	.49358	1.0147	-.00515	.49169	.49628	.50328
#2	10.390	.98301	.49320	-.00381	.49351	1.0282	.03498	.50054	.49228	.49510

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3214.7	62652.	6462.6
Stddev	5.1	232.	21.4
%RSD	.15958	.36950	.33043

#1	3211.0	62488.	6477.7
#2	3218.3	62816.	6447.5

Sample Name: CCB Acquired: 6/5/2015 11:37:36 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.00016	-.00108	.00019	-.00004	.00003	-.00134	.00869	.00010	-.00002	.00014	.00074
Stddev	.00008	.00015	.00034	.00077	.00006	.00002	.00075	.00285	.00015	.00002	.00014	.00006
%RSD	84.460	93.468	31.763	406.86	165.35	72.760	55.832	32.825	154.25	96.344	99.178	8.7731

#1	.00016	.00027	-.00084	.00073	.00001	.00001	-.00186	.01071	.00020	-.00001	.00004	.00079
#2	.00004	.00005	-.00132	-.00035	-.00008	.00005	-.00081	.00667	-.00001	-.00003	.00025	.00069

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00155	.18184	.00374	-.00086	.00005	.00001	.10172	-.00022	-.00298	-.00024	.00573	-.00147
Stddev	.00008	.03256	.00088	.00465	.00000	.00035	.00772	.00010	.00015	.00057	.00494	.00192
%RSD	5.4731	17.907	23.434	539.08	3.7113	2920.6	7.5913	44.316	5.1585	234.51	86.157	130.41

#1	-.00149	.15881	.00312	.00243	.00005	.00026	.10718	-.00028	-.00287	.00016	.00922	-.00011
#2	-.00161	.20486	.00436	-.00415	.00005	-.00024	.09626	-.00015	-.00309	-.00065	.00224	-.00283

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .00865	.00299	.00639	-.00126	.00005	-.00153	.00023	.00280	-.00215	-.00008	.00066	.00016
Stddev	.00130	.00872	.01865	.00048	.00005	.00278	.00018	.00014	.01871	.00074	.00002	.00109
%RSD	14.978	291.75	291.75	38.431	88.293	181.53	77.852	4.8595	869.71	973.21	2.3361	665.63

#1	.00774	.00915	.01958	-.00092	.00009	.00043	.00036	.00270	-.01538	.00045	.00067	-.00060
#2	.00957	-.00318	-.00680	-.00160	.00002	-.00350	.00011	.00289	.01108	-.00060	.00065	.00093

Check ?	Chk Fail	Chk Pass										
High Limit	.00500											
Low Limit	-.00500											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3225.7	63737.	6482.3
Stddev	8.1	44.	33.3
%RSD	.25072	.06880	.51304

#1	3231.4	63768.	6458.7
#2	3220.0	63706.	6505.8

Sample Name: CCVL3312280 Acquired: 6/5/2015 11:40:12 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00963	.10872	.01623	.10143	.01001	.00087	.11195	.21876	.00510	.01079	.01059	.01648
Stddev	.00022	.00074	.00041	.00003	.00051	.00003	.00064	.00292	.00005	.00008	.00035	.00017
%RSD	2.3231	.68387	2.5336	.03114	5.1237	3.0169	.57162	1.3340	.99422	.77265	3.2596	1.0343

#1	.00948	.10819	.01594	.10145	.01037	.00089	.11150	.21670	.00506	.01085	.01035	.01660
#2	.00979	.10924	.01653	.10141	.00965	.00085	.11240	.22083	.00513	.01073	.01083	.01636

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10395	3.2442	.01285	.21031	.01059	.01973	1.1515	.04243	2.8748	.00857	.00032	.01248
Stddev	.00254	.0544	.00211	.00023	.00015	.00046	.0025	.00007	.0270	.00241	.00486	.00293
%RSD	2.4404	1.6784	16.389	.10835	1.4575	2.3401	.21570	.15739	.93934	28.110	1515.1	23.492

#1	.10216	3.2057	.01434	.21047	.01070	.01940	1.1533	.04248	2.8557	.00687	-.00312	.01456
#2	.10575	3.2827	.01136	.21015	.01048	.02006	1.1497	.04238	2.8939	.01027	.00376	.01041

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01736	.49406	1.0573	.10134	.01025	.01500	.00962	.01880	F .02724	.00954	.02200	.01766
Stddev	.00042	.00160	.0034	.00013	.00004	.00012	.00003	.00286	.01752	.00022	.00023	.00042
%RSD	2.4199	.32331	.32331	.12748	.38428	.79809	.29382	15.222	64.308	2.3573	1.0638	2.3625

#1	.01765	.49519	1.0597	.10125	.01023	.01491	.00964	.02082	.03962	.00970	.02217	.01796
#2	.01706	.49293	1.0549	.10143	.01028	.01508	.00960	.01677	.01485	.00938	.02184	.01737

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass							
Value									.06000			
Range									-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3277.3	64337.	6541.6
Stddev	6.3	41.	55.4
%RSD	.19299	.06388	.84688

#1	3281.8	64308.	6580.8
#2	3272.8	64366.	6502.5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03660	8.2612	.06188	.49698	8.5529	.00034	-.00843	W 607.99	.00375
Stddev	.00041	.0524	.00186	.00099	.1101	.00003	.00333	3.34	.00016
%RSD	1.1118	.63377	3.0100	.19860	1.2872	9.5524	39.507	.55013	4.1315

#1	.03689	8.2982	.06320	.49768	8.6307	.00032	-.01078	605.62	.00386
#2	.03631	8.2242	.06057	.49628	8.4750	.00037	-.00607	610.35	.00365

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								500.00	
Low Limit								-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00374	W .10325	.21442	11.785	.69465	.01720	3.6323	.15975	-.00183
Stddev	.00021	.00014	.00085	.001	.00837	.00050	.0113	.00072	.00002
%RSD	5.6394	.13398	.39642	.00846	1.2050	2.9199	.31048	.44912	1.0356

#1	.00389	.10335	.21502	11.785	.68874	.01684	3.6243	.15925	-.00185
#2	.00359	.10315	.21382	11.784	.70057	.01755	3.6403	.16026	-.00182

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.5292	.01373	W 6.4645	.48486	2.4532	.01442	.01279	1.6521	3.5355
Stddev	.0236	.00003	.0365	.00411	.0156	.00380	.00282	.0100	.0214
%RSD	.52116	.20832	.56427	.84678	.63374	26.393	22.018	.60398	.60398

#1	4.5459	.01371	6.4903	.48776	2.4642	.01173	.01080	1.6592	3.5506
#2	4.5125	.01375	6.4387	.48195	2.4422	.01711	.01478	1.6451	3.5204

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01723	3.3524	.00459	2.5503	-.00754	W -.05122	.03144	.45233	.07314
Stddev	.00207	.0030	.00147	.0079	.00088	.04944	.00077	.00590	.00054
%RSD	12.014	.08826	32.081	.31079	11.695	96.510	2.4569	1.3049	.73882

#1	.01870	3.3545	.00355	2.5447	-.00692	-.01627	.03089	.44816	.07276
#2	.01577	3.3503	.00563	2.5559	-.00816	-.08618	.03198	.45651	.07353

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3069.9	59805.	6486.7
Stddev	3.5	361.	34.4
%RSD	.11395	.60317	.53023

#1	3072.3	60060.	6462.4
#2	3067.4	59550.	6511.0

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00731	2.2345	W 2.6693	.00319	.01477	.06871	.00000	-.00115	F 1320.8
Stddev	.00048	.0025	.0709	.00456	.00088	.00138	.00009	.00065	18.7
%RSD	6.5726	.11003	2.6560	142.90	5.9815	2.0024	3763.1	56.270	1.4176

#1	.00697	2.2362	2.7194	-.00003	.01540	.06969	-.00006	-.00069	1334.0
#2	.00765	2.2327	2.6192	.00642	.01415	.06774	.00007	-.00161	1307.6

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Fail				
High Limit			500.00						1000.0
Low Limit			3.2000						-.10000

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00235	.00168	.03320	.03109	4.5087	.46673	.01542	1.9865	.08116
Stddev	.00001	.00007	.00014	.00034	.0882	.00845	.00095	.0097	.00003
%RSD	.27942	4.2745	.43627	1.0895	1.9568	1.8100	6.1475	.48715	.03598

#1	-.00236	.00163	.03330	.03085	4.5711	.46076	.01475	1.9934	.08118
#2	-.00235	.00173	.03309	.03133	4.4463	.47270	.01609	1.9797	.08114

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00261	15.969	.00739	1.5182	.07341	1.9176	.02807	.01577	1.3668
Stddev	.00043	.031	.00024	.0072	.00060	.0333	.00456	.00714	.0238
%RSD	16.528	.19321	3.1880	.47316	.82071	1.7340	16.245	45.265	1.7394

#1	-.00231	15.947	.00722	1.5233	.07384	1.9411	.03130	.02082	1.3836
#2	-.00292	15.991	.00755	1.5131	.07298	1.8940	.02485	.01072	1.3500

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.9249	.00966	W 6.7246	.00270	.12760	W -.01078	W -.05884	.00917	.11300
Stddev	.0509	.00009	.0734	.00226	.00240	.00246	.04750	.00031	.00093
%RSD	1.7394	.90103	1.0918	83.730	1.8781	22.860	80.717	3.3863	.82423

#1	2.9608	.00960	6.7765	.00430	.12930	-.01252	-.09243	.00895	.11234
#2	2.8889	.00972	6.6727	.00110	.12591	-.00904	-.02526	.00939	.11365

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass
High Limit			5.0000			5.0000	45.000		
Low Limit			-.01000			-.01000	-.05000		

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.00542
Stddev	.00153
%RSD	28.225

#1	.00650
#2	.00434

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-70015-B-6-B Acquired: 6/5/2015 11:45:44 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 279902 SOIL 6010C (Fe)

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2894.5	56441.	6269.2
Stddev	4.6	10.	51.5
%RSD	.16015	.01789	.82172
#1	2891.2	56448.	6232.7
#2	2897.7	56434.	6305.6

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00124	4.2701	.00093	.02713	.10190	.00032	-.00373	F 1523.3	-.00339
Stddev	.00060	.0428	.00179	.00013	.00117	.00002	.00589	26.7	.00037
%RSD	48.304	1.0019	192.02	.46377	1.1485	4.7385	157.65	1.7550	10.988

#1	.00166	4.3003	-.00033	.02722	.10272	.00031	.00043	1542.2	-.00313
#2	.00082	4.2398	.00219	.02704	.10107	.00033	-.00790	1504.4	-.00365

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit								1000.0	
Low Limit								-.10000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00141	.02583	.02855	4.4339	1.0440	.01963	3.6912	.09758	-.00292
Stddev	.00008	.00005	.00102	.0671	.0327	.00024	.0064	.00004	.00021
%RSD	5.6147	.19968	3.5581	1.5137	3.1356	1.2326	.17436	.04217	7.0193

#1	.00146	.02587	.02783	4.4814	1.0671	.01981	3.6866	.09755	-.00307
#2	.00135	.02579	.02927	4.3864	1.0208	.01946	3.6957	.09761	-.00278

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.239	.00927	W 2.2265	.13615	3.1909	.03272	.01701	1.7210	3.6829
Stddev	.304	.00011	.0216	.00113	.0320	.00371	.00269	.0285	.0610
%RSD	1.5024	1.2287	.97195	.82669	1.0034	11.351	15.827	1.6555	1.6555

#1	20.454	.00919	2.2112	.13536	3.1683	.03534	.01510	1.7411	3.7261
#2	20.024	.00935	2.2418	.13695	3.2136	.03009	.01891	1.7009	3.6398

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00706	W 8.0066	.00475	.14922	W -.01132	W -.07280	.01320	.08501	.01144
Stddev	.00098	.1450	.00010	.00124	.00143	.00923	.00007	.00154	.00269
%RSD	13.854	1.8116	2.0467	.83274	12.653	12.683	.53851	1.8125	23.535

#1	.00637	7.9040	.00482	.15010	-.01031	-.07932	.01325	.08392	.00954
#2	.00775	8.1092	.00468	.14834	-.01234	-.06627	.01315	.08610	.01335

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit		5.0000			5.0000	45.000			
Low Limit		-.01000			-.01000	-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2889.4	56277.	6284.2
Stddev	3.5	37.	16.3
%RSD	.11948	.06520	.26014

#1	2887.0	56251.	6272.6
#2	2891.9	56303.	6295.8

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00217	15.261	.01977	.08510	1.3946	.00067	-.00536	F 1195.4	.00071
Stddev	.00025	.049	.00420	.00179	.0015	.00002	.00066	.4	.00023
%RSD	11.550	.31794	21.238	2.1006	.10662	2.6689	12.225	.03700	32.310

#1	.00234	15.226	.01680	.08383	1.3935	.00069	-.00490	1195.7	.00055
#2	.00199	15.295	.02274	.08636	1.3957	.00066	-.00583	1195.1	.00087

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit								1000.0	
Low Limit								-.10000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00767	W .12042	.16701	29.518	1.0740	.02337	11.140	.29761	-.00061
Stddev	.00006	.00029	.00179	.050	.0863	.00028	.093	.00265	.00015
%RSD	.75171	.24168	1.0721	.17094	8.0326	1.2025	.83650	.88892	24.796

#1	.00763	.12022	.16827	29.483	1.1350	.02356	11.206	.29948	-.00050
#2	.00772	.12063	.16574	29.554	1.0130	.02317	11.074	.29574	-.00072

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.8185	.02722	W 4.2780	.43632	5.7306	.02659	.02224	2.5175	5.3875
Stddev	.0069	.00007	.0050	.00249	.0194	.00613	.00689	.0172	.0367
%RSD	.18081	.24964	.11797	.57019	.33782	23.067	30.961	.68144	.68144

#1	3.8136	.02727	4.2744	.43808	5.7443	.03093	.02711	2.5054	5.3616
#2	3.8234	.02717	4.2815	.43456	5.7169	.02225	.01737	2.5297	5.4135

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01376	3.6091	.00738	.94662	W -.01036	W -.07449	.06014	.40262	.05464
Stddev	.00227	.0063	.00018	.00782	.00204	.05595	.00066	.00972	.00031
%RSD	16.528	.17367	2.4814	.82661	19.689	75.108	1.0971	2.4133	.56085

#1	.01537	3.6047	.00725	.95215	-.00892	-.03493	.06060	.40949	.05486
#2	.01215	3.6135	.00751	.94108	-.01181	-.11406	.05967	.39575	.05443

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000	45.000			
Low Limit					-.01000	-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3015.4	58203.	6491.8
Stddev	4.3	327.	11.7
%RSD	.14146	.56129	.18007

#1	3012.4	57972.	6500.0
#2	3018.4	58434.	6483.5

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00166	2.2602	W 2.7281	.00198	.02027	.06192	.00009	-.00210	F 1604.2
Stddev	.00012	.0030	.0294	.00064	.00072	.00126	.00002	.00140	36.5
%RSD	7.2049	.13453	1.0793	32.416	3.5691	2.0373	18.090	66.684	2.2758

#1	.00157	2.2623	2.7489	.00243	.02078	.06281	.00010	-.00111	1630.0
#2	.00174	2.2580	2.7073	.00153	.01976	.06103	.00008	-.00310	1578.4

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Fail				
High Limit			500.00						1000.0
Low Limit			3.2000						-.10000

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00389	.00114	.02192	.01494	6.1721	.72923	.02040	2.4302	.09087
Stddev	.00007	.00057	.00018	.00016	.1220	.02247	.00010	.0031	.00003
%RSD	1.8381	50.299	.83762	1.0936	1.9760	3.0814	.46618	.12544	.03321

#1	-.00384	.00154	.02179	.01482	6.2583	.74512	.02047	2.4281	.09084
#2	-.00394	.00073	.02205	.01505	6.0858	.71334	.02033	2.4324	.09089

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00251	18.243	.00790	1.9987	.03245	2.3512	.03517	.01304	1.3053
Stddev	.00037	.033	.00051	.0013	.00071	.0038	.00155	.00199	.0021
%RSD	14.873	.18138	6.4506	.06483	2.1960	.15997	4.4066	15.283	.16268

#1	-.00224	18.266	.00826	1.9978	.03195	2.3539	.03408	.01163	1.3068
#2	-.00277	18.219	.00754	1.9997	.03296	2.3486	.03627	.01445	1.3038

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.7933	.00677	W 8.6659	.00441	.12241	W -.01167	W -.05053	.01161	.03717
Stddev	.0045	.00013	.1043	.00075	.00074	.00054	.00262	.00046	.00003
%RSD	.16268	1.9255	1.2031	17.099	.60292	4.5944	5.1778	3.9457	.08017

#1	2.7965	.00668	8.5922	.00494	.12293	-.01129	-.05238	.01193	.03715
#2	2.7900	.00687	8.7397	.00387	.12189	-.01205	-.04868	.01128	.03719

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass
High Limit			5.0000			5.0000	45.000		
Low Limit			-.01000			-.01000	-.05000		

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.00419
Stddev	.00118
%RSD	28.182

#1	.00503
#2	.00336

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-70015-B-9-A Acquired: 6/5/2015 11:55:51 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 279902 SOIL 6010C (Fe)

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2887.6	56115.	6257.2
Stddev	.6	55.	59.6
%RSD	.02202	.09872	.95326
#1	2887.1	56154.	6215.0
#2	2888.0	56076.	6299.4

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00258	5.0124	-.00180	.02724	.40291	.00020	-.00314	F 1219.0	.00234
Stddev	.00063	.1043	.01185	.00088	.00558	.00003	.00055	38.0	.00001
%RSD	24.594	2.0806	658.06	3.2351	1.3847	16.270	17.452	3.1148	.56613

#1	.00213	5.0861	.00658	.02786	.40686	.00018	-.00353	1245.8	.00233
#2	.00302	4.9386	-.01018	.02661	.39897	.00023	-.00275	1192.1	.00235

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit								1000.0	
Low Limit								-.10000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00242	.05741	.09573	9.1042	.75321	.01971	3.6681	.14052	-.00227
Stddev	.00004	.00092	.00058	.1636	.06340	.00055	.0030	.00025	.00012
%RSD	1.7919	1.6043	.60706	1.7964	8.4168	2.7864	.08233	.17460	5.4652

#1	.00239	.05676	.09614	9.2198	.70838	.02010	3.6660	.14035	-.00235
#2	.00246	.05806	.09532	8.9885	.79804	.01932	3.6703	.14069	-.00218

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.737	.01183	W 2.1393	.30351	4.0359	.02849	.01766	1.2941	2.7694
Stddev	.061	.00086	.0176	.00776	.0273	.00379	.00190	.0164	.0352
%RSD	.47526	7.2536	.82170	2.5567	.67622	13.315	10.763	1.2703	1.2703

#1	12.780	.01123	2.1268	.29802	4.0166	.02581	.01900	1.3057	2.7942
#2	12.694	.01244	2.1517	.30900	4.0552	.03118	.01631	1.2825	2.7445

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01045	W 6.2710	.00384	.33827	W -.01243	-.04128	.02349	.27421	.02799
Stddev	.00192	.0396	.00019	.00046	.00169	.00112	.00001	.00113	.00099
%RSD	18.398	.63104	4.9007	.13641	13.614	2.7181	.03258	.41037	3.5402

#1	.01181	6.2990	.00371	.33794	-.01124	-.04207	.02348	.27342	.02869
#2	.00909	6.2431	.00398	.33859	-.01363	-.04048	.02350	.27501	.02729

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		5.0000			5.0000				
Low Limit		-.01000			-.01000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2955.5	57106.	6310.3
Stddev	1.3	116.	68.6
%RSD	.04540	.20303	1.0869

#1	2954.6	57188.	6261.8
#2	2956.5	57024.	6358.8

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00191	13.412	.02041	.01180	.28867	.00046	-.00430	W 564.78	.00712
Stddev	.00075	.032	.00354	.00097	.00068	.00001	.00095	4.21	.00022
%RSD	39.142	.23742	17.358	8.1992	.23397	3.2408	22.223	.74584	3.1246

#1	.00138	13.390	.01790	.01111	.28915	.00045	-.00362	567.76	.00696
#2	.00244	13.435	.02291	.01248	.28820	.00047	-.00497	561.80	.00728

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								500.00	
Low Limit								-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00506	W .16736	.19596	23.959	1.2470	.02105	4.9874	.39730	-.00147
Stddev	.00039	.00003	.00274	.026	.0092	.00004	.0841	.00042	.00026
%RSD	7.6637	.01734	1.4003	.10800	.73815	.19867	1.6865	.10540	17.848

#1	.00479	.16738	.19790	23.940	1.2535	.02102	5.0469	.39760	-.00166
#2	.00534	.16734	.19402	23.977	1.2405	.02108	4.9279	.39701	-.00128

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.9913	.02812	W 4.2353	.81006	2.6999	.01504	.01102	1.7583	3.7628
Stddev	.0039	.00000	.0140	.00156	.0009	.00060	.00602	.0124	.0266
%RSD	.07812	.00767	.33017	.19238	.03409	3.9991	54.657	.70595	.70595

#1	4.9886	.02813	4.2254	.81116	2.7006	.01462	.01527	1.7496	3.7440
#2	4.9941	.02812	4.2452	.80896	2.6993	.01547	.00676	1.7671	3.7816

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02296	2.8045	.00620	.59510	-.00877	W -.07298	.03310	.41475	.02090
Stddev	.00127	.0005	.00039	.00095	.00295	.01339	.00005	.00025	.00079
%RSD	5.5343	.01805	6.3119	.15898	33.618	18.353	.16246	.06070	3.7827

#1	.02206	2.8041	.00593	.59577	-.00669	-.08245	.03306	.41493	.02034
#2	.02385	2.8048	.00648	.59443	-.01086	-.06350	.03314	.41458	.02146

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3109.0	60361.	6543.2
Stddev	9.5	91.	35.3
%RSD	.30521	.15095	.53952

#1	3115.7	60425.	6568.2
#2	3102.3	60296.	6518.3

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00312	16.032	.01372	.02588	.15074	.00072	-.00309	W 869.23	.00178
Stddev	.00007	.070	.00490	.00040	.00028	.00004	.00491	2.07	.00009
%RSD	2.3271	.43787	35.761	1.5403	.18684	5.5512	158.82	.23777	4.9955

#1	.00317	16.082	.01718	.02616	.15094	.00075	.00038	870.69	.00172
#2	.00307	15.982	.01025	.02559	.15054	.00069	-.00656	867.77	.00184

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								500.00	
Low Limit								-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00550	W .12068	.23358	19.862	1.5425	.02370	8.4920	.24725	.00068
Stddev	.00014	.00083	.00294	.022	.0122	.00125	.0323	.00002	.00016
%RSD	2.5806	.68703	1.2608	.11320	.79036	5.2882	.37991	.00660	23.967

#1	.00540	.12010	.23150	19.846	1.5511	.02459	8.4692	.24726	.00056
#2	.00560	.12127	.23567	19.878	1.5339	.02282	8.5148	.24723	.00079

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.4258	.02120	W 3.7599	.52877	5.3273	.02133	.01029	2.3270	4.9799
Stddev	.0032	.00017	.0120	.00384	.0043	.00215	.00314	.0151	.0323
%RSD	.09393	.79538	.31814	.72548	.08005	10.073	30.476	.64951	.64951

#1	3.4280	.02132	3.7514	.52606	5.3243	.02285	.01251	2.3163	4.9570
#2	3.4235	.02108	3.7683	.53148	5.3304	.01981	.00807	2.3377	5.0027

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01229	3.6826	.00682	.50512	W -.01183	W -.07217	.04565	.93096	.03491
Stddev	.00098	.0035	.00131	.00024	.00316	.01194	.00064	.00659	.00056
%RSD	7.9664	.09494	19.220	.04663	26.717	16.548	1.4011	.70781	1.5904

#1	.01298	3.6801	.00774	.50495	-.01406	-.08062	.04519	.92630	.03451
#2	.01160	3.6851	.00589	.50528	-.00959	-.06373	.04610	.93562	.03530

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000	45.000			
Low Limit					-.01000	-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3057.5	59285.	6510.6
Stddev	1.5	93.	1.0
%RSD	.04925	.15726	.01568

#1	3056.5	59351.	6509.9
#2	3058.6	59219.	6511.4

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02903	9.7257	.01410	.02496	.22225	.00050	.00026	W 756.39	.01442
Stddev	.00065	.0178	.00275	.00055	.00006	.00004	.00141	5.77	.00044
%RSD	2.2516	.18341	19.499	2.2070	.02574	7.5649	541.72	.76241	3.0207

#1	.02857	9.7383	.01216	.02457	.22221	.00047	.00126	760.47	.01411
#2	.02949	9.7131	.01604	.02535	.22229	.00052	-.00074	752.31	.01473

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								500.00	
Low Limit								-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00815	W .44260	.51557	39.654	1.9757	.02162	7.7701	.45019	.00329
Stddev	.00009	.00209	.00493	.071	.0686	.00174	.0375	.00084	.00012
%RSD	1.1518	.47158	.95651	.17811	3.4715	8.0520	.48229	.18605	3.6161

#1	.00809	.44112	.51208	39.604	2.0242	.02285	7.7436	.45078	.00337
#2	.00822	.44407	.51906	39.704	1.9272	.02039	7.7966	.44960	.00320

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.3617	.03213	W 5.9936	2.0928	4.8648	.24959	.01682	1.7254	3.6923
Stddev	.0098	.00045	.0761	.0175	.0712	.00160	.00220	.0368	.0787
%RSD	.18357	1.3976	1.2705	.83751	1.4641	.64286	13.073	2.1311	2.1311

#1	5.3547	.03181	5.9398	2.0804	4.8145	.24845	.01527	1.7514	3.7479
#2	5.3686	.03245	6.0474	2.1052	4.9152	.25072	.01838	1.6994	3.6366

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02385	3.7179	.00666	.29529	-.00910	W -.06361	.04558	1.9527	.00911
Stddev	.00019	.0141	.00033	.00133	.00081	.01292	.00039	.0043	.00156
%RSD	.81060	.37986	4.9159	.44926	8.8644	20.308	.85562	.22165	17.100

#1	.02398	3.7080	.00689	.29436	-.00853	-.05448	.04530	1.9557	.00801
#2	.02371	3.7279	.00643	.29623	-.00967	-.07275	.04585	1.9496	.01021

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3107.2	59951.	6572.9
Stddev	.3	65.	5.3
%RSD	.00840	.10885	.08003

#1	3107.0	59905.	6569.2
#2	3107.3	59997.	6576.6

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00316	47.445	-0.00418	-0.00111	-0.00029	.00005	.99993	.08372	-0.00023	-0.00096	.00068	.00322	47.509
Stddev	.00084	.804	.00134	.00007	.00029	.00003	.00528	.00801	.00001	.00040	.00007	.00001	.173
%RSD	26.489	1.6950	31.994	6.0994	100.16	51.062	.52773	9.5730	4.3203	41.412	10.171	.38741	.36509

#1	.00375	46.877	-0.00324	-0.00116	-0.00049	.00003	1.0037	.08938	-0.00023	-0.00124	.00063	.00322	47.386
#2	.00257	48.014	-0.00513	-0.00106	-0.00008	.00007	.99620	.07805	-0.00024	-0.00068	.00072	.00323	47.631

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18649	.00240	-0.02547	-0.00143	-0.00030	242.02	.00079	.00402	.00292	4.7922	-0.00964	.00640	-0.03115
Stddev	.03325	.00029	.00209	.00012	.00034	3.04	.00003	.00315	.00199	.0456	.00231	.00237	.00606
%RSD	17.829	12.226	8.2015	8.1926	114.72	1.2575	3.2263	78.382	68.205	.95073	23.965	37.010	19.440

#1	.21000	.00219	-0.02399	-0.00135	-0.00053	239.87	.00080	.00624	.00433	4.8244	-0.01127	.00472	-0.03543
#2	.16298	.00261	-0.02695	-0.00152	-0.00006	244.18	.00077	.00179	.00151	4.7600	-0.00800	.00807	-0.02687

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.06666	-0.00233	.00077	4.7631	-0.01870	.00247	10.043	.00285	.00108	.09401
Stddev	.01296	.00101	.00009	.0018	.00030	.00068	.019	.00039	.00025	.00428
%RSD	19.440	43.187	12.174	.03689	1.6213	27.370	.18806	13.691	23.302	4.5503

#1	-0.07582	-0.00162	.00083	4.7618	-0.01892	.00295	10.056	.00258	.00126	.09703
#2	-0.05749	-0.00304	.00070	4.7643	-0.01849	.00199	10.029	.00313	.00090	.09099

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3226.2	62070.	6557.8
Stddev	5.3	65.	67.7
%RSD	.16368	.10501	1.0320

#1	3222.4	62024.	6605.7
#2	3229.9	62116.	6510.0

Sample Name: CCV-3305006 Acquired: 6/5/2015 12:13:27 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49446	.49738	.97312	.49171	.48599	.47671	-.00534	4.9004	.49036	.49964	.49165	.49169	2.4003
Stddev	.00394	.00084	.00097	.00037	.00643	.00630	.00001	.0458	.00216	.00176	.00055	.00220	.0109
%RSD	.79742	.16889	.09998	.07625	1.3222	1.3225	.24628	.93470	.43983	.35323	.11093	.44713	.45218
#1	.49724	.49678	.97381	.49197	.48144	.47225	-.00533	4.8680	.49189	.49840	.49126	.49324	2.3926
#2	.49167	.49797	.97243	.49144	.49053	.48117	-.00535	4.9328	.48884	.50089	.49203	.49013	2.4080

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.390	.99004	19.499	.48649	.47707	5.0122	.49665	.96317	.98880	.00331	.98432	.97638	4.7808
Stddev	.672	.01269	.085	.00140	.00010	.0393	.00153	.00329	.00030	.00326	.00540	.00444	.0283
%RSD	1.3615	1.2817	.43735	.28812	.02069	.78435	.30738	.34124	.02987	98.512	.54909	.45505	.59155
#1	48.914	.98107	19.559	.48748	.47714	4.9844	.49557	.96549	.98901	.00561	.98814	.97952	4.8008
#2	49.865	.99901	19.439	.48550	.47700	5.0400	.49773	.96085	.98859	.00100	.98049	.97324	4.7608

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.231	.95509	.48322	-.00272	.48234	1.0058	-.00547	.48476	.47817	.48872
Stddev	.061	.00021	.00612	.00087	.00223	.0018	.00582	.00434	.00474	.00229
%RSD	.59155	.02207	1.2665	32.055	.46162	.18112	106.30	.89604	.99215	.46930
#1	10.274	.95494	.47889	-.00210	.48391	1.0071	-.00959	.48783	.48152	.48710
#2	10.188	.95524	.48755	-.00334	.48076	1.0045	-.00136	.48169	.47481	.49034

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3271.4	63706.	6573.9
Stddev	.1	82.	34.9
%RSD	.00332	.12859	.53142
#1	3271.4	63648.	6598.6
#2	3271.5	63764.	6549.2

Sample Name: CCB Acquired: 6/5/2015 12:15:55 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00001	-.00022	.00011	-.00036	-.00043	-.00004	-.00156	.00390	.00010	.00014	.00018	.00064
Stddev	.00002	.00025	.00453	.00215	.00044	.00001	.00069	.00282	.00010	.00004	.00002	.00040
%RSD	183.79	116.91	4158.8	596.33	103.60	17.588	43.980	72.225	99.463	31.168	8.9196	61.878

#1	.00000	-.00040	.00331	.00116	-.00074	-.00005	-.00205	.00191	.00003	.00011	.00017	.00036
#2	.00003	-.00004	-.00309	-.00188	-.00011	-.00004	-.00108	.00589	.00016	.00018	.00019	.00092

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00120	.15810	.00214	-.00401	.00002	-.00015	.08146	-.00068	-.00082	-.00091	.00213	-.00023
Stddev	.00207	.02883	.00127	.00391	.00005	.00008	.00204	.00019	.00315	.00075	.00211	.00140
%RSD	172.68	18.235	59.464	97.658	299.83	57.193	2.5033	27.553	381.89	81.811	98.928	612.55

#1	.00026	.17849	.00304	-.00678	.00005	-.00021	.08290	-.00081	.00140	-.00144	.00064	-.00122
#2	-.00266	.13772	.00124	-.00124	-.00002	-.00009	.08002	-.00055	-.00305	-.00038	.00363	.00076

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F.00887	.00094	.00202	.00011	.00002	-.00013	.00019	.00202	-.02923	.00007	.00017	.00188
Stddev	.00058	.00630	.01349	.00129	.00007	.00117	.00001	.00259	.00042	.00023	.00052	.00056
%RSD	6.5408	667.08	667.08	1168.2	308.26	938.24	4.2286	128.02	1.4533	314.01	300.85	29.565

#1	.00846	.00540	.01156	.00102	-.00003	.00071	.00018	.00019	-.02893	.00023	-.00019	.00149
#2	.00928	-.00351	-.00752	-.00080	.00008	-.00096	.00020	.00386	-.02953	-.00009	.00054	.00227

Check ?	Chk Fail	Chk Pass										
High Limit	.00500											
Low Limit	-.00500											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3301.6	64865.	6505.2
Stddev	4.4	261.	69.9
%RSD	.13348	.40291	1.0744

#1	3298.5	64680.	6554.7
#2	3304.7	65049.	6455.8

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00995	.10987	.01577	.09820	.00960	.00093	.10902	.21937	.00544	.01017	.01059	.01604
Stddev	.00029	.00004	.00334	.00117	.00018	.00007	.00184	.00131	.00002	.00014	.00021	.00002
%RSD	2.8876	.03795	21.207	1.1962	1.8612	6.9929	1.6886	.59884	.27740	1.4148	1.9640	.10894

#1	.00975	.10984	.01814	.09736	.00973	.00088	.10772	.21844	.00543	.01007	.01045	.01602
#2	.01015	.10990	.01341	.09903	.00947	.00098	.11032	.22030	.00545	.01027	.01074	.01605

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09839	3.2062	.01251	.20558	.01038	.01931	1.0884	.04077	2.8214	.01020	.00434	.00950
Stddev	.00227	.0179	.00059	.00043	.00002	.00026	.0214	.00102	.0087	.00213	.00309	.00243
%RSD	2.3066	.55885	4.6994	.21123	.21161	1.3601	1.9689	2.4946	.30920	20.842	71.205	25.620

#1	.10000	3.2189	.01293	.20528	.01040	.01913	1.1036	.04005	2.8153	.01171	.00215	.00778
#2	.09679	3.1935	.01210	.20589	.01037	.01950	1.0733	.04149	2.8276	.00870	.00652	.01122

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .02167	.48720	1.0426	.09859	.00999	.01582	.00915	.01878	F .03699	.00929	.02209	.01492
Stddev	.00193	.00435	.0093	.00206	.00004	.00011	.00030	.00369	.00091	.00016	.00090	.00022
%RSD	8.9038	.89200	.89200	2.0902	.43131	.69952	3.2749	19.671	2.4674	1.7231	4.0783	1.5030

#1	.02304	.49027	1.0492	.09713	.01002	.01574	.00894	.02139	.03764	.00918	.02273	.01508
#2	.02031	.48413	1.0360	.10005	.00995	.01590	.00936	.01617	.03635	.00940	.02146	.01476

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass						
Value	.01500								.06000			
Range	30.000%								-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3305.4	65456.	6637.1
Stddev	6.3	128.	12.9
%RSD	.19182	.19538	.19447

#1	3309.9	65546.	6628.0
#2	3300.9	65365.	6646.3

Sample Name: 69944-4 Barium Acquired: 6/5/2015 12:23:15 Type: Unk

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00024	.01210	.00680	1.0071	.12462	-.00009	-.00273	157.14	-.00010
Stddev	.00021	.00022	.00052	.0024	.00076	.00004	.00211	2.19	.00004
%RSD	87.605	1.8500	7.6593	.24138	.61259	40.236	77.469	1.3963	38.816

#1	.00038	.01226	.00717	1.0088	.12408	-.00006	-.00123	155.59	-.00007
#2	.00009	.01194	.00643	1.0053	.12516	-.00011	-.00422	158.69	-.00013

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00114	.00108	.00441	.53926	22.943	.12513	34.435	.27628	.00042
Stddev	.00004	.00007	.00079	.00203	.288	.00351	.126	.00064	.00022
%RSD	3.2028	6.4511	17.965	.37656	1.2563	2.8058	.36449	.22994	51.469

#1	.00116	.00113	.00497	.53782	22.739	.12265	34.523	.27673	.00027
#2	.00111	.00104	.00385	.54070	23.147	.12762	34.346	.27583	.00058

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	154.32	.00506	.25577	.00931	115.48	.00295	.01330	22.598	48.360
Stddev	1.80	.00013	.00502	.00034	.04	.00109	.00107	.229	.491
%RSD	1.1662	2.5810	1.9615	3.6635	.03693	36.806	8.0172	1.0146	1.0146

#1	153.05	.00497	.25932	.00907	115.45	.00219	.01255	22.436	48.013
#2	155.59	.00515	.25223	.00955	115.51	.00372	.01406	22.760	48.707

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00049	2.3281	-.00461	.00224	-.00795	-.00801	.00160	.00252	.00405
Stddev	.00036	.0318	.00067	.00002	.00114	.04899	.00004	.00049	.00095
%RSD	72.462	1.3657	14.522	.84332	14.321	611.42	2.2117	19.471	23.525

#1	.00075	2.3056	-.00413	.00222	-.00715	-.04266	.00162	.00287	.00473
#2	.00024	2.3506	-.00508	.00225	-.00876	.02663	.00157	.00218	.00338

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3231.3	62977.	6738.2
Stddev	11.5	300.	72.0
%RSD	.35608	.47695	1.0681

#1	3239.4	63190.	6789.1
#2	3223.1	62765.	6687.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0021	.02118	.00183	.02244	.00043	.00001	-0.00038	W .13139	.00009
Stddev	.00042	.00058	.00183	.00035	.00015	.00008	.00029	.00008	.00003
%RSD	205.59	2.7461	100.28	1.5754	34.381	829.58	75.472	.06215	36.619

#1	-0.00050	.02159	.00312	.02269	.00033	.00007	-0.00018	.13133	.00006
#2	.00009	.02077	.00053	.02219	.00053	-0.00005	-0.00059	.13144	.00011

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								.10000	
Low Limit								-.10000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0003	.00087	.00217	.02475	.15708	.00330	.06139	.00048	.00008
Stddev	.00016	.00056	.00001	.00003	.03617	.00202	.00022	.00002	.00005
%RSD	606.27	64.344	.27584	.10393	23.029	61.373	.36335	4.6636	55.502

#1	-0.00014	.00126	.00217	.02473	.13150	.00473	.06124	.00046	.00005
#2	.00009	.00047	.00217	.02476	.18266	.00187	.06155	.00049	.00011

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18100	.00066	.01182	.00132	.01654	.00097	.00555	.10709	.22918
Stddev	.00896	.00005	.00286	.00045	.00073	.00151	.00530	.00710	.01519
%RSD	4.9493	7.7507	24.214	34.080	4.4137	156.28	95.428	6.6263	6.6263

#1	.18733	.00070	.00980	.00164	.01603	-0.00010	.00930	.11211	.23992
#2	.17466	.00063	.01384	.00101	.01706	.00204	.00181	.10207	.21844

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00829	.00043	-0.00090	.00018	.00345	-0.03245	-0.00076	.00345	.00326
Stddev	.00031	.00014	.00075	.00034	.00016	.03505	.00003	.00015	.00276
%RSD	3.7933	32.897	83.502	188.83	4.5658	108.02	3.8814	4.2414	84.748

#1	.00806	.00053	-0.00037	.00042	.00334	-0.00766	-0.00078	.00335	.00130
#2	.00851	.00033	-0.00143	-0.00006	.00356	-0.05723	-0.00074	.00355	.00521

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3353.2	66409.	6749.8
Stddev	5.7	212.	4.9
%RSD	.16863	.31863	.07245

#1	3357.2	66259.	6753.3
#2	3349.2	66558.	6746.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04748	1.8552	.92337	1.0941	1.8393	.04548	1.9433	44.948	.09449
Stddev	.00044	.0029	.00153	.0001	.0074	.00036	.0037	.123	.00029
%RSD	.91623	.15798	.16593	.01007	.40297	.80101	.19302	.27384	.30877

#1	.04717	1.8531	.92229	1.0941	1.8340	.04574	1.9460	44.861	.09428
#2	.04779	1.8573	.92446	1.0940	1.8445	.04523	1.9407	45.035	.09470

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.45562	F .18169	.23729	.92026	47.218	.94184	F 45.078	.45230	.93910
Stddev	.00068	.00075	.00087	.00323	.159	.00795	.185	.00093	.00110
%RSD	.14915	.41412	.36618	.35084	.33593	.84431	.41126	.20647	.11738

#1	.45514	.18222	.23668	.91797	47.106	.93621	44.947	.45164	.93832
#2	.45610	.18116	.23791	.92254	47.330	.94746	45.209	.45296	.93988

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit		.05750					56.500		
Low Limit		.04275					46.000		

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.771	.45294	9.4594	.46532	1.9042	.48058	1.9114	F .91636	1.9610
Stddev	.040	.00146	.0210	.00482	.0083	.00329	.0405	.00175	.0037
%RSD	.08089	.32270	.22205	1.0354	.43832	.68517	2.1183	.19122	.19122

#1	49.800	.45191	9.4742	.46872	1.9101	.48291	1.9401	.91760	1.9637
#2	49.743	.45398	9.4445	.46191	1.8983	.47825	1.8828	.91512	1.9584

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Fail	None
High Limit								11.000	
Low Limit								9.0000	

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8465	.91801	.89373	.90309	1.8960	1.9077	.45041	.44065	.47916
Stddev	.0327	.00346	.00276	.00198	.0327	.0439	.00001	.00015	.00757
%RSD	1.7691	.37721	.30857	.21924	1.7238	2.3011	.00305	.03334	1.5809

#1	1.8696	.91556	.89178	.90169	1.9191	1.8766	.45040	.44055	.47380
#2	1.8234	.92046	.89568	.90449	1.8729	1.9387	.45042	.44076	.48451

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3202.4	63293.	6608.5
Stddev	12.1	59.	2.9
%RSD	.37837	.09398	.04387

#1	3210.9	63251.	6606.4
#2	3193.8	63335.	6610.5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .13884	7.2846	.00948	.02299	.25500	.00033	-.00305	336.78	.00368
Stddev	.00050	.0622	.00140	.00002	.00050	.00010	.00226	1.21	.00002
%RSD	.35899	.85362	14.715	.10585	.19692	30.885	74.278	.35796	.58621

#1	.13849	7.2406	.01047	.02297	.25465	.00026	-.00145	335.92	.00366
#2	.13920	7.3286	.00850	.02301	.25536	.00040	-.00465	337.63	.00369

Check ?	Chk Warn	Chk Pass							
High Limit	.10000								
Low Limit	-.01000								

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00287	W .22408	.15165	14.064	.62097	.01142	2.9784	.13943	-.00157
Stddev	.00042	.00251	.00046	.024	.02242	.00138	.0050	.00012	.00053
%RSD	14.563	1.1193	.30213	.17258	3.6113	12.126	.16626	.08903	33.695

#1	.00316	.22586	.15133	14.047	.60511	.01044	2.9749	.13934	-.00195
#2	.00257	.22231	.15197	14.081	.63682	.01239	2.9819	.13952	-.00120

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.4026	.01159	W 3.4730	.28090	2.8017	.00733	.01063	.86387	1.8487
Stddev	.0391	.00017	.0341	.00165	.0229	.00032	.00028	.01105	.0237
%RSD	1.6275	1.4408	.98250	.58642	.81844	4.3220	2.6757	1.2793	1.2793

#1	2.4302	.01148	3.4971	.28206	2.8179	.00756	.01043	.87168	1.8654
#2	2.3749	.01171	3.4489	.27973	2.7855	.00711	.01083	.85605	1.8320

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00982	1.9849	.00331	.23853	-.00710	-.02521	.02841	.44240	.00882
Stddev	.00039	.0004	.00087	.00254	.00185	.05312	.00014	.00317	.00059
%RSD	3.9948	.01980	26.251	1.0659	25.994	210.70	.49554	.71745	6.7161

#1	.01010	1.9846	.00393	.23674	-.00579	-.06277	.02831	.44015	.00840
#2	.00954	1.9851	.00270	.24033	-.00840	.01235	.02851	.44464	.00923

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3170.6	62638.	6627.4
Stddev	4.1	103.	6.4
%RSD	.12956	.16417	.09701

#1	3167.7	62711.	6622.8
#2	3173.5	62565.	6631.9

Sample Name: 280-69768-A-1-G SD@5 Acquired: 6/5/2015 12:38:01 Type: Unk

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment: 279852 SOIL 6010C Q4 (Ca Fe)

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02833	1.4623	.00276	.00399	.05237	.00005	-.00116	68.698	.00066
Stddev	.00002	.0008	.00361	.00170	.00075	.00000	.00196	.759	.00008
%RSD	.06580	.05321	131.15	42.514	1.4412	5.9081	168.44	1.1055	12.228

#1	.02831	1.4618	.00531	.00279	.05184	.00005	.00022	68.161	.00071
#2	.02834	1.4629	.00020	.00519	.05290	.00005	-.00255	69.235	.00060

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00080	.04667	.03223	2.9672	.18618	.00370	.63190	.02918	-.00169
Stddev	.00015	.00012	.00038	.0375	.03936	.00041	.00417	.00006	.00020
%RSD	18.882	.25330	1.1893	1.2652	21.138	11.034	.66036	.20367	11.701

#1	.00091	.04658	.03196	2.9407	.21401	.00399	.63485	.02922	-.00155
#2	.00070	.04675	.03250	2.9938	.15835	.00341	.62895	.02914	-.00183

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.53006	.00243	.66988	.06349	.52563	-.00060	.00955	.18136	.38811
Stddev	.00848	.00001	.00002	.00034	.00103	.00076	.00389	.00565	.01210
%RSD	1.6001	.51104	.00319	.53908	.19632	126.26	40.734	3.1178	3.1178

#1	.52406	.00242	.66989	.06325	.52490	-.00006	.01230	.18536	.39667
#2	.53605	.00244	.66986	.06373	.52636	-.00114	.00680	.17736	.37955

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00485	.39961	-.00040	.04806	-.00452	-.04309	.00542	.09340	.00498
Stddev	.00078	.00292	.00031	.00033	.00209	.01746	.00048	.00066	.00091
%RSD	16.031	.72953	76.998	.69448	46.161	40.525	8.9286	.70242	18.227

#1	.00540	.39755	-.00018	.04830	-.00599	-.03074	.00576	.09386	.00433
#2	.00430	.40167	-.00062	.04782	-.00304	-.05544	.00508	.09294	.00562

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3230.3	63600.	6598.0
Stddev	.5	61.	58.3
%RSD	.01677	.09574	.88424

#1	3230.6	63643.	6639.2
#2	3229.9	63557.	6556.7

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .19230	12.678	.96251	.92432	1.9696	.04639	F 1.9488	373.75	.10034
Stddev	.00064	.060	.00310	.00136	.0045	.00005	.0012	.93	.00010
%RSD	.33169	.46996	.32162	.14733	.22757	.10686	.05929	.24774	.10092

#1	.19275	12.636	.96032	.92528	1.9664	.04636	1.9497	374.40	.10027
#2	.19185	12.720	.96470	.92335	1.9728	.04643	1.9480	373.09	.10041

Check ?	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass				
High Limit	.10000						.10000		
Low Limit	-.01000						-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.45672	W .40659	.43236	24.856	50.029	.99892	47.364	.70401	.93949
Stddev	.00038	.00112	.00215	.034	.128	.00289	.048	.00019	.00157
%RSD	.08398	.27499	.49835	.13544	.25654	.28885	.10222	.02644	.16728

#1	.45699	.40580	.43389	24.832	49.938	.99688	47.398	.70414	.94060
#2	.45645	.40738	.43084	24.880	50.120	1.0010	47.330	.70387	.93838

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.957	.47192	W 12.456	.69087	4.6205	.47085	1.9133	1.9950	4.2693
Stddev	.209	.00091	.008	.00128	.0079	.00196	.0076	.0379	.0810
%RSD	.40175	.19196	.06476	.18597	.17087	.41648	.39988	1.8985	1.8985

#1	51.809	.47257	12.462	.69177	4.6149	.46946	1.9078	2.0218	4.3266
#2	52.105	.47128	12.450	.68996	4.6260	.47223	1.9187	1.9682	4.2120

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.7925	2.8851	.89105	1.0731	1.7760	1.9223	.50016	.86302	.42725
Stddev	.0051	.0096	.00072	.0015	.0014	.0604	.00066	.00044	.00139
%RSD	.28553	.33282	.08055	.14371	.07869	3.1416	.13190	.05149	.32518

#1	1.7888	2.8783	.89054	1.0742	1.7750	1.9650	.50062	.86333	.42627
#2	1.7961	2.8919	.89156	1.0720	1.7770	1.8796	.49969	.86270	.42824

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3114.3	60658.	6533.8
Stddev	1.0	37.	29.0
%RSD	.03245	.06098	.44418

#1	3113.6	60632.	6513.3
#2	3115.0	60684.	6554.3

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .19837	12.333	.96653	.93268	1.9874	.04688	F 1.9645	430.62	.10158
Stddev	.00133	.155	.00687	.00304	.0036	.00017	.0070	2.85	.00041
%RSD	.66861	1.2529	.71129	.32542	.17931	.37197	.35515	.66194	.40370

#1	.19931	12.443	.97139	.93482	1.9900	.04700	1.9694	432.64	.10187
#2	.19743	12.224	.96167	.93053	1.9849	.04676	1.9595	428.61	.10129

Check ?	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass				
High Limit	.10000						.10000		
Low Limit	-.01000						-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46017	W .39425	.38948	12.674	50.647	1.0094	47.888	.59203	.94748
Stddev	.00121	.00017	.00358	.046	.084	.0006	.073	.00040	.00110
%RSD	.26388	.04334	.91983	.36633	.16550	.05537	.15285	.06741	.11634

#1	.46103	.39413	.39201	12.707	50.707	1.0098	47.940	.59175	.94826
#2	.45931	.39438	.38694	12.641	50.588	1.0090	47.836	.59232	.94670

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	54.081	.46471	W 12.823	.72395	4.7213	.48339	1.9465	1.8881	4.0405
Stddev	.083	.00185	.096	.00195	.0165	.00399	.0137	.0484	.1037
%RSD	.15277	.39888	.75121	.26884	.34991	.82465	.70338	2.5656	2.5656

#1	54.022	.46602	12.755	.72257	4.7330	.48621	1.9368	1.8538	3.9672
#2	54.139	.46340	12.891	.72532	4.7096	.48057	1.9562	1.9223	4.1138

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8162	3.2412	.90042	1.0859	1.7992	1.9479	.49986	.84611	.43417
Stddev	.0169	.0058	.00178	.0037	.0102	.0312	.00144	.00217	.00422
%RSD	.92992	.17990	.19782	.33958	.56454	1.6005	.28719	.25597	.97173

#1	1.8042	3.2453	.90168	1.0885	1.7920	1.9700	.50088	.84764	.43119
#2	1.8281	3.2370	.89916	1.0833	1.8064	1.9259	.49885	.84458	.43715

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3102.8	60669.	6562.0
Stddev	6.2	202.	34.6
%RSD	.19951	.33264	.52731

#1	3107.1	60526.	6537.6
#2	3098.4	60811.	6586.5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .18293	7.9981	.19751	.12032	.34158	.04601	-.00158	346.85	.05262
Stddev	.00167	.0749	.00000	.00021	.00029	.00015	.00193	3.05	.00013
%RSD	.91486	.93608	.00153	.17473	.08613	.32649	122.50	.87925	.24806

#1	.18175	8.0511	.19752	.12047	.34137	.04611	-.00021	344.70	.05271
#2	.18412	7.9452	.19751	.12017	.34179	.04590	-.00294	349.01	.05253

Check ?	Chk Warn	Chk Pass							
High Limit	.10000								
Low Limit	-.01000								

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04794	W .26114	.19296	14.454	19.891	.11041	20.519	.18055	.04506
Stddev	.00040	.00437	.00075	.009	.026	.00168	.100	.00004	.00038
%RSD	.83033	1.6723	.38681	.06287	.13261	1.5189	.48916	.02119	.85220

#1	.04822	.26423	.19244	14.461	19.873	.10922	20.448	.18058	.04533
#2	.04766	.25805	.19349	14.448	19.910	.11159	20.590	.18052	.04479

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.602	.05600	W 5.3618	.36269	2.7304	.10636	.20387	5.5082	11.788
Stddev	.626	.00087	.0474	.00392	.0161	.00021	.00538	.0599	.128
%RSD	2.7699	1.5604	.88353	1.0798	.58843	.19488	2.6380	1.0866	1.0866

#1	22.159	.05662	5.3953	.36546	2.7418	.10622	.20007	5.4659	11.697
#2	23.044	.05538	5.3283	.35992	2.7190	.10651	.20767	5.5505	11.878

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10141	1.9675	.18707	.27907	.17330	.45113	.07400	.61347	.05692
Stddev	.00223	.0005	.00247	.00012	.00414	.01100	.00059	.00745	.00036
%RSD	2.1943	.02391	1.3208	.04233	2.3884	2.4379	.80214	1.2139	.63427

#1	.10298	1.9671	.18882	.27916	.17622	.45891	.07442	.61874	.05718
#2	.09984	1.9678	.18532	.27899	.17037	.44335	.07358	.60821	.05667

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3182.2	61868.	6674.2
Stddev	.4	256.	16.0
%RSD	.01105	.41455	.23968

#1	3182.5	61687.	6685.5
#2	3182.0	62050.	6662.8

Sample Name: CCVH-3304613 Acquired: 6/5/2015 12:48:14 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2714
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00235	47.547	.00026	.00022	.00004	.00010	1.0082	.06292	.00001	-.00128	.00084	.00403	47.580
Stddev	.00027	.543	.00037	.00001	.00006	.00003	.0023	.00016	.00025	.00012	.00015	.00063	.583
%RSD	11.319	1.1416	140.11	4.5943	159.11	31.012	.23173	.25340	2969.3	9.7177	18.220	15.689	1.2263

#1	.00254	47.163	.00053	.00021	.00000	.00012	1.0099	.06280	-.00017	-.00119	.00094	.00359	47.168
#2	.00216	47.931	.00000	.00022	.00008	.00008	1.0066	.06303	.00019	-.00137	.00073	.00448	47.993

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None	None	Chk Pass
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.20416	.00177	-.01688	-.00142	-.00054	245.57	.00118	.00287	.00228	4.8572	-.01039	.00308	-.02115
Stddev	.06348	.00037	.00189	.00014	.00008	1.23	.00026	.00104	.00145	.0109	.00363	.00170	.01449
%RSD	31.091	21.024	11.201	9.8985	13.986	.50162	22.049	36.333	63.329	.22385	34.946	55.349	68.522

#1	.15928	.00203	-.01554	-.00132	-.00060	244.70	.00137	.00213	.00126	4.8495	-.01295	.00187	-.03140
#2	.24905	.00151	-.01822	-.00152	-.00049	246.44	.00100	.00361	.00331	4.8649	-.00782	.00428	-.01090

Check ?	None	None	None	None	None	Chk Pass	None	None	None	Chk Pass	None	None	None
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.04526	-.00318	.00055	4.7838	-.01888	.00182	10.225	.00247	.00113	.09834
Stddev	.03101	.00015	.00006	.0172	.00044	.00155	.170	.00034	.00013	.00308
%RSD	68.522	4.5892	10.535	.35864	2.3046	85.197	1.6584	13.866	11.239	3.1297

#1	-.06719	-.00329	.00051	4.7717	-.01919	.00292	10.106	.00271	.00122	.09616
#2	-.02333	-.00308	.00059	4.7960	-.01857	.00072	10.345	.00223	.00104	.10051

Check ?	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3187.4	61734.	6511.3
Stddev	1.4	329.	22.5
%RSD	.04294	.53251	.34616

#1	3188.3	61502.	6527.3
#2	3186.4	61966.	6495.4

Sample Name: CCV-3305006 Acquired: 6/5/2015 12:50:49 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49641	.49913	.96580	.48842	.48769	.47832	-.00246	4.8748	.49050	.49678	.48818	.49152	2.3843
Stddev	.00347	.00024	.00774	.00025	.00541	.00522	.00023	.0913	.00011	.00080	.00101	.00137	.0448
%RSD	.69823	.04819	.80139	.05112	1.1096	1.0905	9.5641	1.8726	.02190	.16112	.20701	.27783	1.8804

#1	.49887	.49896	.96033	.48825	.48387	.47463	-.00229	4.8102	.49057	.49622	.48746	.49249	2.3526
#2	.49396	.49930	.97127	.48860	.49152	.48201	-.00262	4.9393	.49042	.49735	.48889	.49056	2.4160

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.404	.99246	19.507	.48811	.47731	4.9788	.49391	.95480	.98162	.00077	.97329	.96536	4.7640
Stddev	.494	.01466	.033	.00039	.00021	.0293	.00025	.00168	.00205	.00444	.00357	.00052	.0986
%RSD	1.0006	1.4767	.17109	.08064	.04317	.58788	.05030	.17570	.20927	572.40	.36718	.05352	2.0695

#1	49.054	.98209	19.484	.48783	.47717	4.9581	.49374	.95598	.98017	.00391	.97076	.96500	4.6943
#2	49.753	1.0028	19.531	.48839	.47746	4.9995	.49409	.95361	.98307	-.00236	.97582	.96573	4.8337

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.195	.95765	.48445	-.00223	.48442	.99999	-.02268	.48650	.48105	.48142
Stddev	.211	.00066	.00469	.00164	.00039	.00509	.01540	.00599	.00068	.01295
%RSD	2.0695	.06937	.96726	73.806	.08024	.50920	67.919	1.2311	.14185	2.6905

#1	10.046	.95718	.48113	-.00106	.48470	.99639	-.01179	.48226	.48154	.47227
#2	10.344	.95812	.48776	-.00339	.48415	1.0036	-.03357	.49073	.48057	.49058

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3235.4	63297.	6554.0
Stddev	9.3	334.	76.3
%RSD	.28776	.52696	1.1646

#1	3242.0	63532.	6608.0
#2	3228.9	63061.	6500.1

Sample Name: CCB Acquired: 6/5/2015 12:53:17 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00012	-.00039	-.00124	.00021	-.00017	-.00010	-.00031	.00393	.00009	.00014	.00019	.00087
Stddev	.00078	.00009	.00058	.00042	.00006	.00001	.00238	.00806	.00002	.00057	.00013	.00004
%RSD	660.47	23.071	47.000	197.34	34.787	8.8846	757.65	205.08	23.748	419.86	66.644	4.6281

#1	.00067	-.00045	-.00083	.00051	-.00022	-.00011	-.00199	-.00177	.00010	-.00027	.00028	.00084
#2	-.00043	-.00033	-.00166	-.00008	-.00013	-.00009	.00137	.00963	.00007	.00054	.00010	.00090

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00541	.11125	.00030	.00074	.00013	.00044	.07795	-.00040	-.00051	.00101	-.00004	.00179
Stddev	.00156	.04250	.00004	.00375	.00003	.00012	.00294	.00006	.00010	.00041	.00287	.00307
%RSD	28.819	38.201	12.740	506.64	21.067	27.771	3.7745	16.069	19.658	40.258	7568.4	171.92

#1	.00651	.08120	.00033	.00339	.00011	.00052	.08003	-.00045	-.00044	.00129	-.00207	-.00039
#2	.00431	.14130	.00027	-.00191	.00015	.00035	.07587	-.00036	-.00058	.00072	.00199	.00396

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F.00571	.00739	.01580	-.00085	-.00002	.00122	-.00037	.00233	-.03555	.00015	.00015	.00353
Stddev	.00180	.00009	.00019	.00030	.00002	.00040	.00021	.00209	.00694	.00081	.00002	.00242
%RSD	31.435	1.1736	1.1736	35.308	123.48	32.550	56.187	89.677	19.511	540.46	11.248	68.600

#1	.00698	.00745	.01594	-.00106	.00000	.00150	-.00052	.00085	-.03065	-.00042	.00016	.00182
#2	.00444	.00732	.01567	-.00064	-.00003	.00094	-.00023	.00381	-.04046	.00072	.00013	.00524

Check ?	Chk Fail	Chk Pass										
High Limit	.00500											
Low Limit	-.00500											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3238.6	63835.	6495.2
Stddev	6.4	224.	48.0
%RSD	.19882	.35130	.73856

#1	3234.0	63994.	6461.2
#2	3243.1	63677.	6529.1

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00968	.10691	F .00992	.10032	.00960	.00087	.11229	.21988	.00527	.01068	.01040	.01595
Stddev	.00019	.00027	.00082	.00045	.00034	.00008	.00049	.00290	.00006	.00015	.00017	.00058
%RSD	1.9485	.25631	8.2394	.44844	3.5004	8.9363	.43415	1.3173	1.1527	1.3896	1.6231	3.6194

#1	.00955	.10672	.00935	.10064	.00984	.00093	.11194	.22193	.00523	.01057	.01028	.01636
#2	.00981	.10711	.01050	.10000	.00936	.00082	.11263	.21783	.00531	.01078	.01052	.01555

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass								
Value			.01500									
Range			-30.000%									

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10147	3.2124	F .01324	.21130	.01050	.01926	1.1108	.04121	2.8492	.00916	.00134	.00815
Stddev	.00064	.0411	.00039	.00274	.00017	.00007	.0006	.00028	.0178	.00006	.00040	.00005
%RSD	.63049	1.2799	2.9388	1.2969	1.6004	.36316	.05564	.68212	.62583	.68213	29.830	.62570

#1	.10192	3.2415	.01352	.21324	.01038	.01931	1.1112	.04141	2.8618	.00912	.00163	.00811
#2	.10101	3.1833	.01297	.20936	.01062	.01921	1.1104	.04101	2.8366	.00921	.00106	.00819

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .02276	.47620	1.0191	.09914	.01015	.01486	.00980	.01810	.05611	.00960	.02230	.01556
Stddev	.00053	.00590	.0126	.00054	.00013	.00209	.00008	.00014	.00453	.00008	.00031	.00091
%RSD	2.3303	1.2395	1.2395	.54637	1.2652	14.093	.86211	.76568	8.0782	.79360	1.3875	5.8666

#1	.02313	.48038	1.0280	.09953	.01024	.01634	.00974	.01801	.05290	.00955	.02252	.01620
#2	.02238	.47203	1.0101	.09876	.01006	.01338	.00986	.01820	.05931	.00966	.02208	.01491

Check ?	Chk Fail	Chk Pass										
Value	.01500											
Range	30.000%											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3327.8	64691.	6612.5
Stddev	4.1	204.	72.8
%RSD	.12423	.31511	1.1015

#1	3324.9	64835.	6664.0
#2	3330.7	64547.	6561.0

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00799	5.7763	.01640	.01208	.06864	.00031	-0.00014	W 706.25	-0.00105
Stddev	.00058	.0322	.00299	.00031	.00055	.00005	.00032	10.10	.00023
%RSD	7.2295	.55760	18.207	2.5389	.80048	16.081	229.67	1.4295	21.574

#1	.00758	5.7991	.01429	.01186	.06825	.00027	-0.00037	713.39	-0.0089
#2	.00839	5.7535	.01851	.01230	.06903	.00034	.00009	699.11	-0.0121

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								500.00	
Low Limit								-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00351	W .33305	.06181	14.745	.59143	.01682	2.9974	.12945	-0.00081
Stddev	.00033	.00066	.00098	.008	.01935	.00184	.0205	.00042	.00023
%RSD	9.2669	.19953	1.5932	.05448	3.2710	10.941	.68308	.32821	29.005

#1	.00374	.33258	.06111	14.751	.57775	.01552	2.9829	.12915	-0.0097
#2	.00328	.33352	.06250	14.739	.60511	.01812	3.0119	.12975	-0.0064

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.9647	.01322	1.8437	1.5408	2.0012	.01822	.01271	.68574	1.4675
Stddev	.0221	.00015	.0124	.0026	.0189	.00081	.00003	.02195	.0470
%RSD	.31688	1.1090	.67319	.16622	.94261	4.4272	.25064	3.2003	3.2003

#1	6.9491	.01312	1.8525	1.5390	2.0145	.01765	.01273	.70125	1.5007
#2	6.9803	.01332	1.8350	1.5426	1.9879	.01879	.01269	.67022	1.4343

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00822	4.0802	.00506	.08968	-0.00973	W -0.05729	.02067	.71723	.00529
Stddev	.00134	.0072	.00006	.00107	.00044	.02181	.00061	.00192	.00266
%RSD	16.271	.17529	1.1614	1.1977	4.5751	38.065	2.9307	.26782	50.386

#1	.00916	4.0751	.00502	.08892	-0.00941	-.04187	.02024	.71587	.00340
#2	.00727	4.0852	.00510	.09044	-0.1004	-.07272	.02110	.71859	.00717

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3114.4	60408.	6614.7
Stddev	3.8	99.	5.0
%RSD	.12337	.16355	.07620

#1	3117.1	60338.	6618.3
#2	3111.7	60477.	6611.2

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00586	3.5268	.00485	.00617	.04336	.00003	-.00366	54.865	.00129
Stddev	.00025	.0106	.00075	.00101	.00020	.00003	.00126	.137	.00014
%RSD	4.2357	.29903	15.401	16.349	.45704	87.475	34.302	.24889	10.579

#1	.00603	3.5342	.00537	.00689	.04350	.00005	-.00455	54.961	.00119
#2	.00568	3.5193	.00432	.00546	.04322	.00001	-.00277	54.768	.00138

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00205	.01497	.03917	3.6418	.47051	.00870	.73086	.02517	-.00013
Stddev	.00032	.00002	.00133	.0154	.00544	.00097	.00334	.00019	.00075
%RSD	15.570	.15125	3.3845	.42230	1.1572	11.111	.45645	.76150	566.86

#1	.00182	.01496	.04010	3.6526	.46666	.00938	.73322	.02530	-.00066
#2	.00228	.01499	.03823	3.6309	.47436	.00801	.72850	.02503	.00040

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.81383	.00486	.26805	.09706	.89022	.00154	.00670	.70550	1.5098
Stddev	.01742	.00030	.00223	.00128	.00440	.00081	.00076	.00679	.0145
%RSD	2.1402	6.0719	.83149	1.3191	.49379	52.436	11.322	.96279	.96279

#1	.82615	.00507	.26962	.09797	.88712	.00097	.00723	.70070	1.4995
#2	.80151	.00465	.26647	.09616	.89333	.00211	.00616	.71030	1.5200

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01258	.31180	.00366	.08750	-.00243	-.02848	.01096	.23773	.00385
Stddev	.00019	.00002	.00011	.00197	.00067	.00204	.00012	.00339	.00147
%RSD	1.4745	.00723	2.9348	2.2505	27.392	7.1600	1.0806	1.4265	38.218

#1	.01245	.31182	.00373	.08889	-.00290	-.02703	.01104	.24013	.00489
#2	.01271	.31178	.00358	.08611	-.00196	-.02992	.01087	.23533	.00281

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3330.4	64622.	6746.1
Stddev	6.3	117.	17.5
%RSD	.18974	.18040	.25981

#1	3325.9	64705.	6733.7
#2	3334.8	64540.	6758.5

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 24673	8.9327	.01678	.01921	.07540	.00045	-0.00053	390.06	.00400
Stddev	.00061	.0093	.00518	.00071	.00032	.00005	.00108	9.04	.00008
%RSD	.24615	.10382	30.856	3.6872	.42641	10.531	204.56	2.3172	1.9497

#1	.24716	8.9261	.01312	.01971	.07563	.00042	-.00129	396.45	.00405
#2	.24630	8.9393	.02044	.01871	.07518	.00048	.00024	383.67	.00394

Check ?	Chk Warn	Chk Pass							
High Limit	.10000								
Low Limit	-.01000								

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00262	W .38341	.21928	19.395	.77999	.01413	3.2700	.11114	-0.00108
Stddev	.00009	.00487	.00146	.042	.04434	.00123	.0014	.00036	.00020
%RSD	3.4199	1.2712	.66502	.21406	5.6849	8.6684	.04400	.32026	18.875

#1	.00256	.37996	.22032	19.424	.74863	.01327	3.2710	.11089	-.00122
#2	.00269	.38685	.21825	19.365	.81134	.01500	3.2690	.11139	-.00094

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.7232	.01145	W 3.4337	.25097	5.1471	.00761	.01690	.69376	1.4846
Stddev	.0060	.00050	.0529	.00415	.0669	.00423	.00688	.00116	.0025
%RSD	.22040	4.4032	1.5399	1.6519	1.3006	55.530	40.696	.16679	.16679

#1	2.7275	.01110	3.3963	.24804	5.0997	.01060	.01204	.69458	1.4864
#2	2.7190	.01181	3.4711	.25390	5.1944	.00462	.02176	.69294	1.4829

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00587	3.1693	.00270	.07955	-.00807	W -.05240	.03388	.65713	.00621
Stddev	.00007	.0002	.00007	.00077	.00081	.00306	.00006	.00087	.00030
%RSD	1.2517	.00620	2.5054	.96171	10.081	5.8350	.17759	.13262	4.8842

#1	.00581	3.1695	.00265	.07901	-.00865	-.05456	.03383	.65652	.00600
#2	.00592	3.1692	.00275	.08009	-.00750	-.05023	.03392	.65775	.00642

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3259.6	63626.	6864.1
Stddev	12.8	85.	40.2
%RSD	.39341	.13323	.58584

#1	3268.7	63566.	6835.7
#2	3250.6	63686.	6892.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00528	1.9746	.00359	.00234	.01598	-.00011	-.00129	58.344	.00066
Stddev	.00014	.0155	.00164	.00007	.00001	.00001	.00018	.505	.00015
%RSD	2.6664	.78258	45.662	3.0877	.03766	9.6213	14.167	.86506	22.053

#1	.00518	1.9637	.00243	.00239	.01599	-.00011	-.00116	57.987	.00056
#2	.00538	1.9856	.00474	.00229	.01598	-.00012	-.00142	58.701	.00076

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00079	.01635	.02310	4.0360	.37169	.00474	.67431	.02367	-.00123
Stddev	.00017	.00044	.00041	.0457	.05108	.00181	.00424	.00023	.00038
%RSD	22.041	2.7063	1.7814	1.1323	13.741	38.102	.62937	.96359	31.035

#1	.00092	.01666	.02281	4.0037	.33557	.00346	.67731	.02383	-.00150
#2	.00067	.01603	.02339	4.0683	.40780	.00602	.67131	.02351	-.00096

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.76837	.00304	.27847	.05000	.46210	-.00004	.00809	.59893	1.2817
Stddev	.00881	.00006	.00380	.00001	.00493	.00047	.00139	.00261	.0056
%RSD	1.1466	1.9674	1.3645	.01358	1.0669	1178.8	17.158	.43529	.43529

#1	.76214	.00309	.28116	.05000	.45861	.00029	.00711	.59709	1.2778
#2	.77460	.00300	.27579	.05001	.46558	-.00037	.00907	.60077	1.2857

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00916	.23410	.00266	.04730	-.00414	W -.05310	.00649	.13788	.00426
Stddev	.00073	.00215	.00095	.00057	.00183	.01423	.00052	.00184	.00179
%RSD	8.0031	.91845	35.740	1.2101	44.059	26.793	8.0364	1.3322	42.022

#1	.00968	.23258	.00199	.04770	-.00544	-.06316	.00686	.13917	.00552
#2	.00864	.23562	.00333	.04689	-.00285	-.04304	.00612	.13658	.00299

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3296.1	64111.	6702.3
Stddev	28.9	66.	8.3
%RSD	.87670	.10344	.12391

#1	3316.6	64064.	6708.1
#2	3275.7	64158.	6696.4

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00005	4.2218	.00078	.02157	.01614	.00014	-0.00402	203.46	-0.00046
Stddev	.00046	.0291	.00340	.00001	.00015	.00001	.00098	.61	.00022
%RSD	838.59	.69018	437.08	.03236	.94719	8.3946	24.258	.29825	46.752

#1	-.00027	4.2424	-.00163	.02156	.01603	.00013	-.00333	203.03	-.00031
#2	.00038	4.2012	.00319	.02157	.01625	.00014	-.00471	203.89	-.00061

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00097	.01820	.00450	4.5659	1.1226	.01091	3.2927	.05352	.00169
Stddev	.00002	.00023	.00003	.0136	.0369	.00056	.0148	.00040	.00025
%RSD	1.5541	1.2454	.59461	.29715	3.2845	5.1707	.44991	.75042	14.893

#1	.00098	.01836	.00451	4.5563	1.0965	.01131	3.3032	.05381	.00187
#2	.00096	.01804	.00448	4.5755	1.1486	.01051	3.2822	.05324	.00151

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.243	.00349	.47135	.02110	4.4010	.00445	.01651	.71006	1.5195
Stddev	.254	.00019	.00228	.00080	.0175	.00146	.00012	.00253	.0054
%RSD	2.0752	5.4878	.48424	3.7889	.39793	32.916	.71275	.35688	.35688

#1	12.064	.00362	.47297	.02053	4.4134	.00548	.01642	.71185	1.5234
#2	12.423	.00335	.46974	.02166	4.3886	.00341	.01659	.70827	1.5157

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00711	.97876	.00294	.23050	-.00835	-.04773	.01522	.01157	.00368
Stddev	.00047	.00244	.00071	.00033	.00116	.02567	.00007	.00097	.00040
%RSD	6.5597	.24919	24.061	.14453	13.889	53.774	.46708	8.3802	10.930

#1	.00744	.97704	.00244	.23073	-.00917	-.02958	.01517	.01089	.00340
#2	.00678	.98049	.00344	.23026	-.00753	-.06588	.01527	.01226	.00397

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3203.0	61972.	6580.2
Stddev	7.1	9.	46.6
%RSD	.22160	.01488	.70768

#1	3198.0	61965.	6613.2
#2	3208.0	61978.	6547.3

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00520	4.1172	.01064	.01946	.04352	.00016	-.00288	W 645.13	-.00103
Stddev	.00004	.0090	.00424	.00006	.00031	.00000	.00095	9.55	.00033
%RSD	.79613	.21899	39.836	.30117	.71393	2.6314	32.893	1.4805	32.517

#1	.00523	4.1236	.00764	.01950	.04374	.00016	-.00221	651.88	-.00079
#2	.00517	4.1108	.01364	.01942	.04330	.00016	-.00354	638.37	-.00126

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								500.00	
Low Limit								-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00172	.02363	.01747	6.9423	.42414	.01370	2.0861	.09644	-.00219
Stddev	.00047	.00047	.00057	.0142	.04735	.00060	.0139	.00035	.00056
%RSD	27.384	1.9906	3.2532	.20427	11.163	4.3778	.66601	.36774	25.579

#1	.00205	.02396	.01788	6.9323	.45762	.01412	2.0959	.09669	-.00180
#2	.00139	.02330	.01707	6.9523	.39066	.01328	2.0763	.09619	-.00259

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.5292	.00913	W 2.0523	.05717	1.7049	.01328	.01221	.66460	1.4222
Stddev	.0482	.00056	.0149	.00124	.0082	.00601	.00036	.02007	.0430
%RSD	.73788	6.0946	.72537	2.1646	.47928	45.221	2.9392	3.0198	3.0198

#1	6.5632	.00953	2.0628	.05630	1.7107	.01753	.01247	.65041	1.3919
#2	6.4951	.00874	2.0418	.05805	1.6991	.00904	.01196	.67879	1.4526

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00741	4.7677	.00405	.12889	W -.01012	-.03492	.01492	.33256	.00724
Stddev	.00061	.0196	.00210	.00036	.00080	.03876	.00033	.00333	.00203
%RSD	8.2865	.41127	51.868	.28302	7.9251	111.00	2.1809	1.0027	28.114

#1	.00698	4.7815	.00554	.12863	-.00955	-.06233	.01515	.33020	.00580
#2	.00785	4.7538	.00257	.12914	-.01068	-.00751	.01469	.33492	.00867

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000				
Low Limit					-.01000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3063.4	59408.	6531.1
Stddev	7.4	462.	86.5
%RSD	.24230	.77720	1.3240

#1	3068.7	59735.	6470.0
#2	3058.2	59082.	6592.3

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00226	2.4867	W 2.8254	.00949	.01048	.03385	.00009	-.00254	488.07
Stddev	.00019	.0041	.0448	.00105	.00054	.00022	.00006	.00050	5.16
%RSD	8.5639	.16322	1.5847	11.087	5.1456	.65627	61.328	19.579	1.0567

#1	.00239	2.4896	2.8570	.00874	.01010	.03400	.00005	-.00290	491.72
#2	.00212	2.4839	2.7937	.01023	.01086	.03369	.00013	-.00219	484.43

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			500.00						
Low Limit			3.2000						

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00091	.00136	.02312	.01430	6.4406	.48344	.01346	1.8943	.08706
Stddev	.00009	.00008	.00011	.00073	.0430	.03710	.00028	.0066	.00017
%RSD	9.8825	5.5021	.46677	5.0710	.66820	7.6750	2.0797	.34845	.19260

#1	-.00085	.00131	.02319	.01481	6.4711	.50968	.01366	1.8990	.08694
#2	-.00098	.00142	.02304	.01379	6.4102	.45721	.01326	1.8896	.08718

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00182	4.8947	.00562	1.7776	.03770	1.6441	.00947	.00936	.74676
Stddev	.00006	.0135	.00002	.0013	.00206	.0088	.00072	.00012	.00091
%RSD	3.0536	.27668	.43005	.07439	5.4522	.53258	7.6379	1.2777	.12213

#1	-.00178	4.9043	.00560	1.7786	.03915	1.6503	.00896	.00927	.74611
#2	-.00186	4.8851	.00564	1.7767	.03625	1.6379	.00999	.00944	.74740

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.5981	.00600	3.2252	.00398	.08696	-.00974	W -.06996	.01389	.09601
Stddev	.0019	.00005	.0108	.00082	.00078	.00050	.00491	.00012	.00006
%RSD	.12213	.82400	.33606	20.713	.89889	5.1631	7.0241	.85817	.05917

#1	1.5967	.00603	3.2328	.00340	.08640	-.01009	-.06649	.01398	.09605
#2	1.5994	.00596	3.2175	.00456	.08751	-.00938	-.07344	.01381	.09597

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass					
High Limit							45.000		
Low Limit							-.05000		

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.00355
Stddev	.00085
%RSD	23.894

#1	.00415
#2	.00295

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69768-A-8-C Acquired: 6/5/2015 13:14:08 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 279852 SOIL 6010C Q4 (Ca Fe)

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	3105.4	60120.	6547.2
Stddev	8.1	34.	33.5
%RSD	.26102	.05660	.51226
#1	3099.6	60144.	6523.5
#2	3111.1	60096.	6570.9

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08260	9.5939	.01108	.00864	.12373	.00037	-0.00087	W 685.88	.00395
Stddev	.00052	.0170	.00370	.00004	.00110	.00007	.00225	3.50	.00004
%RSD	.62604	.17682	33.399	.48062	.88970	20.130	258.01	.50962	1.0421

#1	.08224	9.5819	.00847	.00867	.12295	.00042	-.00247	688.35	.00398
#2	.08297	9.6059	.01370	.00861	.12451	.00031	.00072	683.41	.00393

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								500.00	
Low Limit								-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00471	W .30764	.39686	22.350	.76285	.01613	5.3894	.21368	.00038
Stddev	.00019	.00369	.00053	.092	.01586	.00161	.0095	.00033	.00060
%RSD	4.1085	1.1983	.13439	.40970	2.0796	9.9749	.17720	.15476	158.07

#1	.00485	.31025	.39724	22.285	.75164	.01499	5.3827	.21344	.00080
#2	.00458	.30503	.39648	22.414	.77407	.01727	5.3962	.21391	-.00004

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.9987	.03163	W 2.9236	.48273	3.7338	.01754	.01040	.89882	1.9235
Stddev	.0110	.00089	.0381	.00050	.0517	.00147	.00322	.00235	.0050
%RSD	.36537	2.8145	1.3029	.10378	1.3859	8.4077	30.984	.26093	.26093

#1	2.9910	.03226	2.9505	.48308	3.7704	.01650	.01268	.89716	1.9199
#2	3.0065	.03100	2.8967	.48237	3.6972	.01859	.00812	.90048	1.9270

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01671	2.7007	.00696	.16026	W -.01009	W -.06989	.05361	.89022	.00646
Stddev	.00125	.0130	.00206	.00102	.00273	.01731	.00044	.00211	.00213
%RSD	7.5073	.48083	29.578	.63916	27.095	24.764	.81388	.23648	32.910

#1	.01760	2.6915	.00551	.16098	-.00816	-.05765	.05330	.89171	.00496
#2	.01582	2.7099	.00842	.15953	-.01202	-.08213	.05392	.88873	.00796

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000	45.000			
Low Limit					-.01000	-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3102.8	59677.	6567.8
Stddev	10.4	528.	12.4
%RSD	.33395	.88413	.18930

#1	3110.2	60050.	6559.1
#2	3095.5	59303.	6576.6

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00067	3.5667	.00483	.01948	.01910	.00012	-.00200	42.261	.00024
Stddev	.00019	.0417	.00219	.00070	.00021	.00001	.00221	.023	.00016
%RSD	28.030	1.1678	45.329	3.5773	1.1248	10.949	110.44	.05396	68.122

#1	.00080	3.5372	.00638	.01997	.01925	.00011	-.00356	42.245	.00012
#2	.00054	3.5961	.00328	.01898	.01895	.00013	-.00044	42.277	.00035

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00142	.01795	.00705	7.5273	.70482	.00777	1.7932	.02951	.00291
Stddev	.00033	.00014	.00001	.0718	.07475	.00126	.0213	.00021	.00012
%RSD	23.113	.77889	.09051	.95376	10.606	16.211	1.1887	.70760	4.0164

#1	.00118	.01805	.00705	7.4765	.75768	.00688	1.7781	.02937	.00299
#2	.00165	.01785	.00705	7.5780	.65196	.00866	1.8083	.02966	.00283

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.8279	.00455	.38159	.01492	7.9869	.00015	.01191	.49461	1.0585
Stddev	.0148	.00045	.00107	.00223	.0107	.00142	.00341	.01884	.0403
%RSD	.52395	9.8596	.28084	14.951	.13451	939.12	28.680	3.8099	3.8099

#1	2.8384	.00486	.38235	.01649	7.9945	-.00085	.00949	.48129	1.0300
#2	2.8174	.00423	.38083	.01334	7.9793	.00115	.01432	.50794	1.0870

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00715	.24637	.00269	.06397	-.00248	-.02357	.02026	.02440	.00456
Stddev	.00045	.00068	.00035	.00144	.00089	.01342	.00005	.00025	.00216
%RSD	6.2496	.27744	12.869	2.2554	35.990	56.944	.25516	1.0397	47.451

#1	.00747	.24589	.00245	.06295	-.00185	-.03306	.02030	.02422	.00303
#2	.00683	.24685	.00294	.06499	-.00311	-.01408	.02023	.02458	.00609

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3302.2	63649.	6627.4
Stddev	5.6	23.	6.7
%RSD	.16873	.03610	.10036

#1	3298.2	63633.	6632.1
#2	3306.1	63665.	6622.7

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00270	47.686	.00131	-.00160	.00010	.00007	.97455	.03971	-.00008	-.00095	.00057
Stddev	.00089	.326	.00290	.00057	.00045	.00006	.00713	.00749	.00009	.00015	.00001
%RSD	33.037	.68374	220.70	35.470	450.41	89.276	.73129	18.864	108.78	15.888	1.3822

#1	.00207	47.455	-.00074	-.00200	-.00022	.00002	.96952	.04501	-.00002	-.00106	.00058
#2	.00333	47.917	.00336	-.00120	.00042	.00011	.97959	.03441	-.00014	-.00084	.00057

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00255	47.692	.18398	.00386	-.02101	-.00143	-.00015	243.07	.00149	.00189	.00265
Stddev	.00021	.521	.03861	.00269	.00556	.00002	.00002	1.96	.00010	.00220	.00179
%RSD	8.3222	1.0919	20.984	69.639	26.465	1.3357	12.075	.80723	7.0157	116.76	67.457

#1	.00240	47.324	.15668	.00576	-.02495	-.00142	-.00014	241.68	.00142	.00344	.00139
#2	.00270	48.060	.21128	.00196	-.01708	-.00145	-.00016	244.45	.00156	.00033	.00392

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.6774	-.00953	.00079	-.02218	-.04746	-.00325	.00037	4.8095	-.01868	.00267	10.196
Stddev	.0506	.00065	.00253	.02369	.05069	.00038	.00001	.0101	.00053	.00009	.091
%RSD	1.0812	6.8598	321.12	106.80	106.80	11.791	2.8552	.20918	2.8611	3.4741	.88783

#1	4.6416	-.00907	-.00100	-.03893	-.08330	-.00352	.00038	4.8024	-.01906	.00274	10.260
#2	4.7132	-.01000	.00257	-.00543	-.01162	-.00298	.00036	4.8166	-.01831	.00261	10.132

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	5.0000										
Range	-5.0000%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00291	.00078	.09439
Stddev	.00003	.00023	.00403
%RSD	1.0589	30.208	4.2720

#1	.00289	.00094	.09154
#2	.00293	.00061	.09724

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3210.0	61174.	6511.9
Stddev	5.7	25.	19.8
%RSD	.17795	.04166	.30468

#1	3214.0	61192.	6525.9
#2	3205.9	61156.	6497.9

Sample Name: CCV-3305006 Acquired: 6/5/2015 13:24:41 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49221	.49275	.96196	.48584	.48530	.47327	-.00253	4.8816	.48451	.49702	.48520	.48107	2.3884
Stddev	.00233	.00006	.00253	.00104	.00461	.00461	.00110	.0424	.00153	.00004	.00094	.00337	.0116
%RSD	.47320	.01234	.26325	.21339	.95038	.97334	43.573	.86919	.31669	.00836	.19474	.69982	.48625
#1	.49385	.49280	.96375	.48511	.48204	.47001	-.00331	4.8516	.48342	.49705	.48587	.48345	2.3802
#2	.49056	.49271	.96017	.48658	.48856	.47652	-.00175	4.9116	.48559	.49699	.48453	.47869	2.3966

Check ?	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Value	Chk Pass	None	Chk Pass										
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.100	.98264	19.421	.48794	.47235	4.9472	.49484	.94944	.97755	.00810	.96383	.96280	4.7883
Stddev	.476	.00571	.062	.00067	.00149	.0253	.00141	.00664	.00943	.00511	.00323	.00001	.0998
%RSD	.97027	.58093	.31767	.13728	.31471	.51122	.28584	.69929	.96443	63.008	.33498	.00146	2.0842
#1	48.763	.97860	19.465	.48842	.47340	4.9294	.49584	.94474	.98422	.00449	.96155	.96281	4.7178
#2	49.436	.98667	19.377	.48747	.47130	4.9651	.49384	.95413	.97089	.01172	.96611	.96279	4.8589

Check ?	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Value	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.247	.94488	.47936	-.00163	.48166	.98957	-.02005	.48938	.48290	.49042
Stddev	.214	.00506	.00512	.00060	.00046	.00111	.03670	.00015	.00010	.00775
%RSD	2.0842	.53544	1.0677	36.849	.09641	.11213	183.00	.03000	.01981	1.5797
#1	10.096	.94845	.47574	-.00206	.48199	.98879	.00590	.48927	.48283	.48494
#2	10.398	.94130	.48298	-.00121	.48133	.99036	-.04600	.48948	.48297	.49590

Check ?	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Value	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3261.4	62941.	6560.0
Stddev	5.2	20.	59.3
%RSD	.16040	.03143	.90461
#1	3257.7	62927.	6602.0
#2	3265.1	62955.	6518.1

Sample Name: CCB Acquired: 6/5/2015 13:27:11 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0003	-0.0008	-0.0128	-0.0092	-0.0055	-0.0012	-0.0205	.00151	-0.0019	.00001	.00004	.00010
Stddev	.00016	.00012	.00130	.00008	.00042	.00011	.00099	.00314	.00013	.00010	.00020	.00021
%RSD	619.61	149.76	101.91	8.1954	75.876	90.408	48.603	208.05	69.098	1055.6	502.53	216.53

#1	-0.0014	.00000	-0.00036	-0.00097	-0.00085	-0.00004	-0.00275	-0.00071	-0.00028	.00008	-0.00010	-0.00005
#2	.00009	-0.00016	-0.00220	-0.00087	-0.00026	-0.00020	-0.00134	.00373	-0.00010	-0.00006	.00018	.00024

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00212	.15442	.00254	-0.00056	.00013	-0.00007	.05327	-0.00053	-0.00153	-0.00041	-0.00255	-0.00023
Stddev	.00175	.02220	.00043	.00027	.00007	.00011	.00063	.00038	.00059	.00089	.00249	.00142
%RSD	82.285	14.377	16.975	48.443	49.582	157.03	1.1829	70.666	38.739	214.74	97.576	615.22

#1	-0.00089	.13872	.00285	-0.00075	.00018	-0.00015	.05282	-0.00080	-0.00111	-0.00104	-0.00079	-0.00123
#2	-0.00336	.17012	.00224	-0.00036	.00009	.00001	.05371	-0.00027	-0.00195	.00021	-0.00431	.00077

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F.00665	.00224	.00480	-0.00087	-0.00001	.00003	-0.00014	.00212	-0.02385	-0.00003	.00007	.00168
Stddev	.00096	.00316	.00676	.00055	.00005	.00123	.00015	.00290	.04015	.00014	.00026	.00123
%RSD	14.492	140.82	140.82	63.003	367.23	4759.2	102.10	136.97	168.35	451.81	366.30	73.054

#1	.00733	.00448	.00958	-0.00126	.00002	-0.00085	-0.00025	.00007	.00454	.00007	.00025	.00255
#2	.00597	.00001	.00002	-0.00048	-0.00005	.00090	-0.00004	.00417	-0.05224	-0.00013	-0.00011	.00081

Check ?	Chk Fail	Chk Pass										
High Limit	.00500											
Low Limit	-0.00500											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3283.6	63622.	6544.6
Stddev	9.7	187.	69.1
%RSD	.29401	.29405	1.0565

#1	3276.8	63490.	6593.5
#2	3290.5	63755.	6495.7

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01019	.10458	.01510	.09758	.00981	.00086	.10897	.21162	.00531	.01040	.01052	.01545
Stddev	.00004	.00109	.00169	.00003	.00003	.00005	.00074	.00207	.00020	.00037	.00003	.00010
%RSD	.37771	1.0420	11.168	.02571	.28675	6.2648	.67854	.97754	3.6879	3.5364	.29016	.64492

#1	.01017	.10535	.01629	.09757	.00979	.00090	.10949	.21309	.00517	.01014	.01054	.01552
#2	.01022	.10381	.01391	.09760	.00983	.00082	.10844	.21016	.00545	.01066	.01049	.01538

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09903	3.1428	F .01317	.20904	.01051	.01933	1.0736	.04145	2.8410	.01060	.00237	.01173
Stddev	.00067	.0500	.00059	.00102	.00009	.00013	.0158	.00028	.0040	.00141	.00189	.00068
%RSD	.67912	1.5894	4.4711	.48753	.84414	.68495	1.4736	.67131	.14208	13.352	79.788	5.7868

#1	.09950	3.1781	.01275	.20832	.01044	.01923	1.0847	.04125	2.8381	.01160	.00103	.01221
#2	.09855	3.1075	.01358	.20976	.01057	.01942	1.0624	.04165	2.8438	.00959	.00371	.01125

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .02319	.47459	1.0156	.09809	.00996	.01501	.00965	.01785	F .03524	.00961	.02234	.01799
Stddev	.00089	.01596	.0342	.00018	.00017	.00065	.00033	.00133	.01224	.00028	.00023	.00090
%RSD	3.8357	3.3634	3.3634	.18114	1.7403	4.3494	3.3881	7.4596	34.727	2.8785	1.0492	4.9919

#1	.02256	.48588	1.0398	.09796	.01008	.01455	.00988	.01879	.04389	.00942	.02251	.01863
#2	.02382	.46330	.99147	.09822	.00983	.01547	.00942	.01691	.02658	.00981	.02218	.01736

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass						
Value	.01500								.06000			
Range	30.000%								-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3329.2	64216.	6674.2
Stddev	10.6	127.	16.2
%RSD	.31852	.19728	.24278

#1	3336.7	64126.	6685.7
#2	3321.7	64306.	6662.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0059	.00291	.00015	-0.00120	-0.00031	-0.00015	-0.00210	.02227	-0.00003
Stddev	.00004	.00008	.00179	.00076	.00036	.00007	.00024	.00272	.00002
%RSD	6.9700	2.6572	1219.6	63.287	114.07	47.442	11.665	12.197	68.579

#1	-0.00061	.00297	-0.00112	-0.00174	-0.00057	-0.00020	-0.00227	.02419	-0.00004
#2	-0.00056	.00286	.00141	-0.00066	-0.00006	-0.00010	-0.00193	.02035	-0.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0024	.00038	.00075	W .07108	.13811	.00168	.00278	.00061	.00003
Stddev	.00009	.00014	.00016	.00127	.02601	.00176	.00006	.00002	.00035
%RSD	37.368	36.612	21.170	1.7864	18.832	105.09	2.2504	3.0973	1003.7

#1	-0.00030	.00048	.00063	.07198	.11972	.00292	.00274	.00060	.00028
#2	-0.00018	.00028	.00086	.07019	.15650	.00043	.00283	.00063	-0.00021

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				.05000					
Low Limit				-.05000					

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04444	-0.00027	.00010	-0.00024	.00875	.00083	.00573	.00185	.00397
Stddev	.00566	.00029	.00333	.00150	.00004	.00142	.00337	.01282	.02743
%RSD	12.734	104.28	3303.4	633.26	.49526	170.43	58.857	691.01	691.01

#1	.04044	-0.00007	.00246	.00083	.00878	.00183	.00812	.01092	.02337
#2	.04845	-0.00048	-0.00225	-0.00130	.00872	-0.00017	.00335	-0.00721	-0.01543

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0012	.00020	-0.00004	-0.00011	.00108	-0.01484	.00039	.00140	.00204
Stddev	.00117	.00007	.00103	.00014	.00141	.00746	.00020	.00025	.00299
%RSD	965.02	36.009	2325.5	124.90	130.23	50.300	51.132	17.624	146.55

#1	-0.00095	.00015	-0.00077	-0.00021	.00208	-.02012	.00053	.00158	.00416
#2	.00071	.00025	.00068	-0.00001	.00009	-0.00956	.00025	.00123	-0.00007

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3341.8	64054.	6602.7
Stddev	2.0	250.	1.9
%RSD	.05911	.38960	.02902

#1	3340.4	63877.	6604.1
#2	3343.2	64230.	6601.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05180	1.8766	.97382	1.0026	1.9797	.04753	2.0344	48.105	.09944
Stddev	.00003	.0011	.00629	.0042	.0118	.00029	.0150	.336	.00076
%RSD	.05293	.05839	.64607	.41974	.59537	.60330	.73881	.69842	.76039

#1	.05178	1.8758	.97827	.99958	1.9714	.04733	2.0238	47.868	.09890
#2	.05182	1.8774	.96937	1.0055	1.9880	.04774	2.0451	48.343	.09997

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48711	F .18997	.25160	.95469	50.157	.99482	49.209	.49084	.98319
Stddev	.00062	.00028	.00057	.00927	.392	.00868	.180	.00205	.00059
%RSD	.12659	.14876	.22831	.97081	.78166	.87215	.36668	.41721	.06029

#1	.48668	.19017	.25201	.94814	49.879	.98868	49.081	.48939	.98277
#2	.48755	.18977	.25120	.96125	50.434	1.0010	49.337	.49228	.98361

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	52.396	.48248	9.9593	.49462	1.9623	.51059	1.9942	9.7303	20.823
Stddev	.684	.00158	.0401	.00308	.0087	.00731	.0286	.1394	.298
%RSD	1.3054	.32765	.40216	.62210	.44500	1.4317	1.4367	1.4325	1.4325

#1	51.912	.48137	9.9309	.49244	1.9561	.50542	1.9740	9.6318	20.612
#2	52.880	.48360	9.9876	.49680	1.9685	.51576	2.0145	9.8289	21.034

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9012	.96887	.97216	.97607	1.9521	2.0193	.49495	.47326	.51255
Stddev	.0186	.00611	.00615	.00321	.0255	.0063	.00341	.00481	.00975
%RSD	.97630	.63041	.63233	.32893	1.3068	.30995	.68968	1.0164	1.9027

#1	1.8881	.96455	.96782	.97380	1.9340	2.0237	.49254	.46986	.50565
#2	1.9143	.97319	.97651	.97834	1.9701	2.0149	.49737	.47666	.51945

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3202.6	61994.	6616.4
Stddev	7.9	547.	15.2
%RSD	.24815	.88172	.22991

#1	3208.2	62381.	6605.7
#2	3197.0	61608.	6627.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00030	.00310	-.00069	.04543	.19233	-.00018	-.00561	86.593	.00008
Stddev	.00002	.00019	.00137	.00142	.00134	.00007	.00130	.618	.00027
%RSD	7.5627	6.2651	198.07	3.1276	.69797	40.670	23.123	.71354	342.35

#1	.00032	.00324	-.00166	.04643	.19138	-.00013	-.00469	86.156	-.00011
#2	.00028	.00297	.00028	.04442	.19328	-.00023	-.00653	87.030	.00027

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00055	.00327	.00145	.02027	1.1078	.02208	9.8441	.00835	-.00093
Stddev	.00034	.00036	.00020	.00156	.0015	.00078	.0063	.00002	.00003
%RSD	62.318	10.923	13.788	7.6754	.13899	3.5173	.06370	.21794	3.4210

#1	-.00079	.00301	.00131	.02137	1.1089	.02153	9.8397	.00836	-.00091
#2	-.00031	.00352	.00159	.01917	1.1067	.02263	9.8486	.00834	-.00095

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	57.705	.00051	.01629	.00733	7.0233	.00276	.01082	11.524	24.661
Stddev	.051	.00047	.00003	.00055	.0297	.00041	.00308	.018	.038
%RSD	.08842	91.908	.18892	7.5666	.42288	14.952	28.516	.15343	.15343

#1	57.741	.00018	.01627	.00773	7.0443	.00247	.01300	11.511	24.634
#2	57.669	.00084	.01631	.00694	7.0023	.00305	.00863	11.536	24.687

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00141	.72722	-.00113	-.00023	-.00472	-.02315	.00702	.00225	.00299
Stddev	.00164	.00601	.00099	.00016	.00044	.00402	.00100	.00001	.00015
%RSD	116.50	.82671	87.176	69.603	9.3647	17.361	14.227	.58525	5.1209

#1	.00025	.72296	-.00183	-.00034	-.00441	-.02031	.00773	.00226	.00310
#2	.00256	.73147	-.00043	-.00012	-.00503	-.02599	.00632	.00224	.00289

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3225.9	61787.	6603.4
Stddev	2.3	212.	45.8
%RSD	.07094	.34362	.69353

#1	3227.5	61637.	6635.8
#2	3224.3	61937.	6571.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00041	.00020	-.00074	.00762	.03957	-.00013	-.00021	17.705	-.00001
Stddev	.00055	.00064	.00281	.00030	.00025	.00003	.00166	.114	.00003
%RSD	136.38	316.92	378.26	3.9514	.62210	20.394	788.46	.64632	364.21

#1	.00001	.00065	.00124	.00740	.03939	-.00011	-.00139	17.624	-.00003
#2	.00080	-.00025	-.00273	.00783	.03974	-.00014	.00097	17.785	.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	.00072	.00050	.01362	.35061	.00527	2.0685	.00184	-.00069
Stddev	.00045	.00004	.00009	.00101	.07179	.00016	.0028	.00010	.00011
%RSD	290.12	5.3409	17.324	7.4164	20.475	2.9674	.13515	5.3550	15.474

#1	.00016	.00075	.00044	.01291	.40137	.00538	2.0705	.00191	-.00076
#2	-.00047	.00069	.00057	.01434	.29985	.00516	2.0665	.00177	-.00061

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.723	.00022	.00438	.00301	1.3459	.00159	.00577	2.3106	4.9448
Stddev	.046	.00015	.00095	.00295	.0076	.00049	.00079	.0129	.0277
%RSD	.39525	68.230	21.621	98.102	.56619	30.922	13.706	.55997	.55997

#1	11.691	.00033	.00505	.00092	1.3405	.00124	.00521	2.3015	4.9252
#2	11.756	.00012	.00371	.00510	1.3513	.00194	.00633	2.3198	4.9644

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00288	.14901	.00105	-.00057	-.00198	-.04930	.00066	.00223	.00202
Stddev	.00059	.00060	.00032	.00012	.00359	.01718	.00063	.00001	.00131
%RSD	20.503	.39991	30.603	21.510	181.19	34.855	94.659	.33241	65.204

#1	.00247	.14859	.00127	-.00066	.00056	-.06146	.00022	.00223	.00294
#2	.00330	.14943	.00082	-.00049	-.00452	-.03715	.00111	.00222	.00109

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3282.2	63383.	6580.0
Stddev	7.1	224.	.0
%RSD	.21528	.35349	.00025

#1	3277.2	63225.	6580.0
#2	3287.2	63542.	6580.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05130	1.8375	.96738	1.0377	2.1506	.04754	F 2.0047	132.65	.09924
Stddev	.00090	.0021	.00109	.0023	.0445	.00105	.0062	2.66	.00100
%RSD	1.7616	.11200	.11231	.22281	2.0687	2.2116	.30904	2.0063	1.0125

#1	.05194	1.8390	.96662	1.0393	2.1191	.04680	2.0091	130.77	.09995
#2	.05066	1.8361	.96815	1.0361	2.1820	.04829	2.0003	134.53	.09853

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47830	W .18623	.25122	.96884	51.397	1.0131	58.519	.49614	.97094
Stddev	.00074	.00015	.00253	.01773	1.097	.0204	.324	.00006	.00028
%RSD	.15495	.08116	1.0066	1.8297	2.1344	2.0144	.55323	.01186	.02852

#1	.47883	.18613	.24943	.95630	50.622	.99870	58.290	.49610	.97074
#2	.47778	.18634	.25300	.98137	52.173	1.0276	58.748	.49618	.97113

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	107.55	.47422	W 10.104	.48885	8.8953	.50528	1.9808	21.032	45.009
Stddev	2.08	.00078	.021	.00342	.0277	.00120	.0098	.396	.848
%RSD	1.9349	.16427	.20520	.69991	.31098	.23725	.49507	1.8833	1.8833

#1	106.08	.47367	10.118	.49126	8.9148	.50443	1.9738	20.752	44.410
#2	109.02	.47477	10.089	.48643	8.8757	.50612	1.9877	21.312	45.609

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8635	1.6777	.97850	.98125	1.8638	2.0681	.50670	.47215	.51053
Stddev	.0104	.0382	.00152	.00031	.0005	.0155	.00109	.00051	.01068
%RSD	.56004	2.2756	.15514	.03184	.02827	.74776	.21568	.10886	2.0927

#1	1.8562	1.6507	.97958	.98103	1.8641	2.0572	.50593	.47179	.50297
#2	1.8709	1.7046	.97743	.98148	1.8634	2.0791	.50747	.47251	.51808

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3148.6	60086.	6512.0
Stddev	.5	113.	112.0
%RSD	.01652	.18780	1.7206

#1	3148.3	60166.	6591.2
#2	3149.0	60006.	6432.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05122	1.8327	.97034	1.0385	2.1911	.04824	F 1.9911	135.74	.09916
Stddev	.00018	.0013	.00376	.0004	.0225	.00050	.0025	1.20	.00066
%RSD	.34220	.07282	.38720	.04298	1.0262	1.0346	.12683	.88512	.66894

#1	.05109	1.8337	.96769	1.0388	2.1752	.04789	1.9929	134.89	.09963
#2	.05134	1.8318	.97300	1.0382	2.2070	.04860	1.9893	136.58	.09869

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47966	W .18564	.25161	.95929	52.066	1.0309	58.477	.49848	.97912
Stddev	.00003	.00145	.00076	.00633	.467	.0089	.189	.00123	.00340
%RSD	.00708	.78359	.30192	.65994	.89599	.86438	.32334	.24731	.34754

#1	.47969	.18667	.25214	.95481	51.736	1.0246	58.343	.49761	.98152
#2	.47964	.18461	.25107	.96377	52.396	1.0372	58.611	.49935	.97671

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	108.60	.47657	W 10.106	.48892	8.9523	.50622	1.9802	21.484	45.976
Stddev	2.75	.00010	.008	.00294	.0155	.00267	.0073	.292	.625
%RSD	2.5308	.02074	.07458	.60203	.17285	.52699	.36607	1.3596	1.3596

#1	106.66	.47664	10.111	.48684	8.9632	.50811	1.9853	21.277	45.534
#2	110.55	.47651	10.101	.49100	8.9413	.50434	1.9751	21.690	46.418

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8973	1.7226	.98043	.98729	1.8703	2.0528	.50928	.47577	.51634
Stddev	.0090	.0172	.00229	.00007	.0169	.0323	.00059	.00502	.00379
%RSD	.47402	1.0002	.23386	.00737	.90148	1.5754	.11625	1.0553	.73349

#1	1.9037	1.7104	.97881	.98724	1.8822	2.0756	.50886	.47222	.51366
#2	1.8910	1.7348	.98205	.98734	1.8583	2.0299	.50970	.47932	.51902

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3121.9	59609.	6479.3
Stddev	6.3	265.	42.6
%RSD	.20111	.44489	.65807

#1	3126.3	59797.	6509.4
#2	3117.4	59422.	6449.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04895	.90858	.18926	.13985	.28458	.04650	-.00444	103.77	.04837
Stddev	.00002	.00453	.00387	.00021	.00258	.00016	.00036	.54	.00001
%RSD	.03974	.49888	2.0443	.15022	.90609	.34142	8.1943	.51853	.01223

#1	.04894	.91179	.19199	.14000	.28276	.04661	-.00418	103.39	.04836
#2	.04896	.90538	.18652	.13970	.28641	.04639	-.00470	104.15	.04837

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04581	.04856	.04898	.94193	20.369	.11967	28.290	.05566	.04471
Stddev	.00009	.00064	.00014	.00426	.068	.00230	.062	.00002	.00016
%RSD	.20490	1.3116	.28653	.45182	.33557	1.9181	.21756	.03204	.36118

#1	.04588	.04901	.04888	.94494	20.321	.12129	28.247	.05567	.04460
#2	.04575	.04811	.04907	.93892	20.418	.11805	28.334	.05565	.04483

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	76.182	.04625	1.9536	.10172	6.7842	.09703	.19526	16.015	34.273
Stddev	.504	.00018	.0250	.00291	.0641	.00105	.00128	.201	.429
%RSD	.66118	.39866	1.2810	2.8577	.94555	1.0822	.65622	1.2521	1.2521

#1	76.538	.04638	1.9713	.10377	6.8295	.09777	.19616	16.157	34.576
#2	75.826	.04612	1.9359	.09966	6.7388	.09628	.19435	15.874	33.969

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09165	.75960	.18951	.04707	.17930	.46800	.05579	.19498	.05268
Stddev	.00251	.00339	.00109	.00066	.00158	.01182	.00108	.00072	.00032
%RSD	2.7427	.44606	.57548	1.4049	.87980	2.5261	1.9378	.37019	.61617

#1	.09343	.75720	.19028	.04753	.18042	.45964	.05655	.19447	.05245
#2	.08987	.76199	.18874	.04660	.17819	.47636	.05502	.19549	.05291

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3180.1	60573.	6504.5
Stddev	6.6	133.	41.0
%RSD	.20833	.21931	.62979

#1	3175.4	60479.	6475.5
#2	3184.8	60667.	6533.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.01084	-.00219	.72493	.17622	-.00006	-.00535	95.376	.00036
Stddev	.00040	.00035	.00011	.00036	.00220	.00004	.00344	1.233	.00007
%RSD	1179.2	3.2158	5.0190	.04988	1.2478	62.000	64.342	1.2925	20.323

#1	-.00025	.01109	-.00211	.72468	.17466	-.00004	-.00291	94.504	.00041
#2	.00032	.01059	-.00226	.72519	.17777	-.00009	-.00778	96.248	.00031

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00062	.00309	.00210	.01713	.61223	.06590	42.082	.01447	-.00168
Stddev	.00004	.00001	.00066	.00037	.00272	.00243	.005	.00003	.00037
%RSD	6.6379	.40923	31.538	2.1805	.44416	3.6901	.01127	.20493	21.716

#1	-.00059	.00310	.00257	.01686	.61031	.06418	42.078	.01450	-.00143
#2	-.00065	.00308	.00163	.01739	.61415	.06762	42.085	.01445	-.00194

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	131.18	.00235	.05496	.00750	20.193	.00011	.00956	19.366	41.442
Stddev	1.59	.00013	.00023	.00088	.055	.00082	.00237	.474	1.015
%RSD	1.2128	5.4699	.42486	11.769	.27094	774.09	24.828	2.4482	2.4482

#1	130.05	.00244	.05479	.00812	20.155	.00069	.00788	19.030	40.725
#2	132.30	.00226	.05512	.00688	20.232	-.00048	.01124	19.701	42.160

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	1.2911	-.00219	-.00059	-.00709	-.00121	.00113	.00424	.00242
Stddev	.00241	.0183	.00122	.00029	.00190	.02056	.00008	.00042	.00085
%RSD	2151.6	1.4202	55.867	50.012	26.788	1700.0	7.4522	9.7981	34.954

#1	-.00160	1.2781	-.00133	-.00038	-.00575	.01333	.00119	.00395	.00182
#2	.00182	1.3040	-.00306	-.00080	-.00843	-.01575	.00107	.00454	.00302

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3133.6	59759.	6490.6
Stddev	2.7	151.	112.2
%RSD	.08595	.25340	1.7279

#1	3135.5	59652.	6569.9
#2	3131.7	59866.	6411.3

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00263	47.489	-.00055	.00126	.00023	.00008	.98739	.03737	-.00026	-.00133	.00081
Stddev	.00016	.516	.00091	.00031	.00019	.00003	.01038	.00547	.00007	.00008	.00030
%RSD	5.9530	1.0871	164.64	24.498	85.095	34.609	1.0513	14.632	25.290	6.2196	37.053

#1	.00252	47.124	-.00120	.00104	.00009	.00006	.99473	.03350	-.00030	-.00127	.00102
#2	.00274	47.854	.00009	.00148	.00036	.00011	.98005	.04124	-.00021	-.00139	.00060

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00307	47.934	.19176	.00207	-.01940	-.00149	-.00045	241.73	.00130	.00320	.00166
Stddev	.00032	.028	.03429	.00065	.00295	.00010	.00028	2.23	.00022	.00112	.00067
%RSD	10.570	.05849	17.881	31.483	15.186	6.6946	62.422	.92123	17.107	34.980	40.444

#1	.00284	47.954	.21600	.00253	-.01732	-.00142	-.00025	240.15	.00146	.00241	.00119
#2	.00330	47.914	.16751	.00161	-.02148	-.00156	-.00065	243.30	.00115	.00400	.00214

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.7262	-.00831	.00284	-.01992	-.04263	-.00235	.00044	4.8122	-.01839	.00093	10.205
Stddev	.0901	.00026	.00368	.02856	.06112	.00031	.00000	.0043	.00001	.00095	.083
%RSD	1.9055	3.0910	129.28	143.38	143.38	13.040	.09238	.08894	.07250	101.29	.80852

#1	4.7899	-.00813	.00544	.00028	.00059	-.00214	.00044	4.8092	-.01838	.00027	10.147
#2	4.6625	-.00849	.00024	-.04012	-.08585	-.00257	.00044	4.8152	-.01840	.00160	10.264

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	5.0000										
Range	-5.0000%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00334	.00129	.09647
Stddev	.00001	.00012	.00254
%RSD	.29753	9.3139	2.6289

#1	.00335	.00137	.09826
#2	.00334	.00120	.09467

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3216.2	61145.	6453.8
Stddev	10.9	154.	19.5
%RSD	.33868	.25144	.30241

#1	3223.9	61037.	6467.6
#2	3208.5	61254.	6440.0

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50097	.48942	.94330	.48604	.49024	.47429	-.00240	4.9416	.48361	.49887	.48394	.48475	2.3999
Stddev	.00436	.00177	.01056	.00353	.00184	.00241	.00034	.0301	.00134	.00074	.00202	.00649	.0057
%RSD	.86949	.36255	1.1198	.72670	.37523	.50848	14.142	.60894	.27670	.14793	.41723	1.3384	.23657

#1	.49789	.48816	.93584	.48354	.48894	.47258	-.00216	4.9203	.48266	.49835	.48251	.48016	2.3958
#2	.50405	.49067	.95077	.48854	.49154	.47599	-.00264	4.9629	.48455	.49939	.48536	.48934	2.4039

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.262	.98524	19.667	.49319	.47108	4.9893	.49826	.95559	.98845	.00458	.96526	.95212	4.8119
Stddev	.258	.00468	.119	.00063	.00115	.0397	.00066	.00721	.00476	.00379	.00070	.00166	.0751
%RSD	.52382	.47551	.60604	.12681	.24370	.79519	.13241	.75500	.48143	82.801	.07285	.17417	1.5603

#1	49.080	.98193	19.583	.49275	.47027	4.9612	.49779	.95049	.98509	.00726	.96575	.95095	4.7588
#2	49.445	.98856	19.752	.49363	.47189	5.0174	.49873	.96070	.99182	.00190	.96476	.95329	4.8650

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.298	.94656	.47998	-.00185	.48486	.98417	-.03615	.49148	.48714	.49574
Stddev	.161	.00274	.00263	.00284	.00037	.00402	.03383	.00448	.00123	.00365
%RSD	1.5603	.28960	.54750	153.47	.07674	.40822	93.595	.91186	.25322	.73632

#1	10.184	.94462	.47812	-.00016	.48512	.98133	-.06007	.49465	.48802	.49316
#2	10.411	.94849	.48184	-.00385	.48460	.98702	-.01222	.48831	.48627	.49832

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3252.3	62025.	6490.1
Stddev	2.7	422.	41.1
%RSD	.08419	.67990	.63284

#1	3250.4	61727.	6519.2
#2	3254.2	62323.	6461.1

Sample Name: CCB Acquired: 6/5/2015 13:57:19 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0012	-0.0017	.00105	.00048	-0.00045	-0.00013	-0.00250	.00052	-0.00003	-0.00012	.00022	-0.00002
Stddev	.00009	.00019	.00081	.00077	.00020	.00006	.00105	.00220	.00031	.00038	.00003	.00018
%RSD	71.050	113.84	77.760	159.36	44.891	47.113	41.836	425.75	1040.6	314.10	15.517	1142.6

#1	-0.00006	-0.00003	.00162	.00103	-0.00060	-0.00009	-0.00176	.00208	-0.00025	.00015	.00024	-0.00015
#2	-0.00018	-0.00030	.00047	-0.00006	-0.00031	-0.00017	-0.00324	-0.00104	.00019	-0.00039	.00019	.00011

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00029	.11811	.00265	-0.00676	.00010	.00033	.07847	-0.00055	-0.00059	.00005	.00133	-0.00030
Stddev	.00022	.06870	.00020	.00000	.00002	.00010	.00852	.00036	.00083	.00059	.00543	.00047
%RSD	77.123	58.166	7.6655	.06108	19.279	30.325	10.852	64.503	140.41	1193.4	408.73	159.77

#1	.00013	.06953	.00251	-0.00676	.00008	.00040	.07245	-0.00030	-0.00118	-0.00037	.00517	.00004
#2	.00045	.16669	.00279	-0.00676	.00011	.00026	.08449	-0.00081	.00000	.00046	-0.00251	-0.00063

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .01045	.00200	.00428	-0.00074	.00008	.00132	.00025	.00244	-0.03161	.00000	.00000	.00203
Stddev	.00194	.01310	.02803	.00044	.00002	.00150	.00049	.00208	.04220	.00014	.0001	.00210
%RSD	18.521	654.35	654.35	59.471	23.363	113.59	195.11	85.250	133.51	3121.6	1313.4	103.54

#1	.00909	-0.00726	-.01553	-0.00043	.00009	.00239	-0.00009	.00391	-.06144	.00010	-0.00005	.00352
#2	.01182	.01126	.02410	-0.00106	.00007	.00026	.00059	.00097	-0.00177	-0.00009	.00004	.00054

Check ?	Chk Fail	Chk Pass										
High Limit	.00500											
Low Limit	-.00500											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3275.5	62899.	6445.2
Stddev	1.1	107.	5.6
%RSD	.03243	.16983	.08699

#1	3276.2	62823.	6449.1
#2	3274.7	62974.	6441.2

Sample Name: CCVL3312280 Acquired: 6/5/2015 13:59:41 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01018	.10405	.01270	.09936	.00971	.00092	.10932	.22354	.00496	.01025	.01038	.01544
Stddev	.00104	.00049	.00137	.00049	.00020	.00012	.00066	.00219	.00003	.00027	.00038	.00039
%RSD	10.192	.46630	10.782	.49575	2.0687	13.567	.60541	.97953	.53860	2.6617	3.6846	2.5277

#1	.00944	.10371	.01173	.09970	.00957	.00100	.10979	.22509	.00498	.01006	.01011	.01516
#2	.01091	.10439	.01367	.09901	.00986	.00083	.10885	.22199	.00494	.01045	.01065	.01572

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09852	3.2339	.01201	.21070	.01059	.01923	1.1113	.04126	2.8326	.01006	.00627	.00985
Stddev	.00266	.0461	.00137	.00461	.00010	.00034	.0277	.00007	.0046	.00126	.00203	.00149
%RSD	2.6996	1.4270	11.371	2.1876	.98511	1.7539	2.4891	.17136	.16150	12.561	32.407	15.137

#1	.10040	3.2666	.01297	.21396	.01052	.01899	1.1309	.04131	2.8294	.00917	.00770	.00880
#2	.09664	3.2013	.01104	.20744	.01066	.01947	1.0918	.04121	2.8358	.01096	.00483	.01091

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .02149	.50457	1.0798	.09773	.01024	.01454	.01005	.01700	F .03163	.00981	.02264	.01688
Stddev	.00050	.00638	.0136	.00043	.00038	.00156	.00026	.00019	.00844	.00022	.00004	.00016
%RSD	2.3138	1.2635	1.2635	.44116	3.7536	10.735	2.5705	1.1340	26.694	2.2384	.16918	.97465

#1	.02184	.50907	1.0894	.09804	.01052	.01564	.01023	.01713	.03760	.00997	.02267	.01699
#2	.02113	.50006	1.0701	.09743	.00997	.01344	.00986	.01686	.02566	.00966	.02262	.01676

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass						
Value	.01500								.06000			
Range	30.000%								-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3310.7	63949.	6532.7
Stddev	4.0	3.	14.3
%RSD	.11949	.00422	.21872

#1	3313.5	63947.	6522.6
#2	3307.9	63951.	6542.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0007	.00145	.00042	.00071	-0.00032	-0.00015	-0.00060	.00782	-0.00010
Stddev	.00055	.00007	.00223	.00019	.00024	.00011	.00167	.00676	.00009
%RSD	778.98	5.1122	533.79	26.485	74.480	75.897	277.56	86.405	86.408

#1	-0.00046	.00140	.00200	.00084	-0.00049	-0.00007	-0.00179	.01260	-0.00016
#2	.00032	.00151	-.00116	.00058	-0.00015	-0.00022	.00058	.00304	-0.00004

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	-0.00004	.00088	.00550	.10825	.00201	-0.00239	.00018	-0.00026
Stddev	.00027	.00005	.00006	.00013	.01485	.00062	.00229	.00001	.00009
%RSD	449.38	108.86	7.2453	2.3839	13.718	30.878	95.947	8.1757	33.092

#1	.00025	-0.00001	.00084	.00541	.11875	.00245	-0.00401	.00017	-0.00020
#2	-0.00013	-0.00007	.00093	.00559	.09775	.00157	-0.00077	.00019	-0.00032

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04546	-0.00001	.00029	.00028	.00485	.00025	W .00848	-.01480	-.03168
Stddev	.01278	.00000	.00136	.00077	.00536	.00246	.00000	.00668	.01429
%RSD	28.106	3.5127	469.89	278.01	110.50	974.04	.02342	45.117	45.117

#1	.05450	-0.00001	.00125	-0.00027	.00864	-0.00148	.00848	-.01953	-.04179
#2	.03643	-0.00001	-0.00067	.00082	.00106	.00199	.00848	-0.10008	-.02157

Check ?	Chk Pass	Chk Warn	Chk Pass	None					
High Limit							.00750		
Low Limit							-.00750		

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00020	.00007	-0.00025	-0.00018	.00160	-0.03440	-0.00050	.00003	.00254
Stddev	.00071	.00009	.00219	.00012	.00346	.00950	.00018	.00011	.00056
%RSD	357.96	126.60	875.70	67.341	215.84	27.612	36.465	326.73	21.922

#1	.00030	.00013	-.00180	-.00026	-0.00084	-.04112	-0.00037	.00012	.00293
#2	-0.00070	.00001	.00130	-0.00009	.00405	-0.02768	-0.00062	-0.00005	.00214

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3302.4	64031.	6608.5
Stddev	6.3	35.	55.6
%RSD	.19042	.05401	.84169

#1	3297.9	64006.	6647.8
#2	3306.8	64055.	6569.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05154	1.8814	.96363	1.0020	1.9870	.04806	2.0226	48.396	.09950
Stddev	.00021	.0015	.00460	.0020	.0232	.00003	.0045	.603	.00005
%RSD	.41361	.08061	.47711	.19923	1.1648	.05499	.22051	1.2458	.04824

#1	.05170	1.8803	.96038	1.0006	1.9707	.04804	2.0258	47.969	.09953
#2	.05139	1.8825	.96688	1.0034	2.0034	.04808	2.0195	48.822	.09947

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48818	F.18950	.24937	.97693	50.309	.99916	49.348	.49505	.98197
Stddev	.00042	.00017	.00089	.00473	.540	.01415	.054	.00073	.00198
%RSD	.08634	.09224	.35782	.48409	1.0736	1.4166	.10880	.14795	.20143

#1	.48788	.18963	.24874	.97359	49.927	.98916	49.310	.49557	.98057
#2	.48847	.18938	.25000	.98027	50.691	1.0092	49.386	.49453	.98337

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	52.694	.48473	10.007	.49986	1.9424	.51169	2.0160	9.8396	21.057
Stddev	.587	.00123	.010	.00058	.0023	.00229	.0158	.1239	.265
%RSD	1.1143	.25380	.09770	.11597	.11924	.44820	.78115	1.2595	1.2595

#1	52.279	.48386	9.9997	.49945	1.9440	.51331	2.0271	9.7520	20.869
#2	53.110	.48560	10.014	.50027	1.9408	.51006	2.0048	9.9273	21.244

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9259	.97248	.98228	.97866	1.9713	2.0254	.49494	.47872	.51681
Stddev	.0092	.01101	.00000	.00178	.0125	.0260	.00138	.00123	.00501
%RSD	.47960	1.1324	.00031	.18195	.63586	1.2856	.27823	.25739	.96985

#1	1.9324	.96469	.98228	.97992	1.9802	2.0438	.49591	.47959	.51326
#2	1.9193	.98026	.98229	.97740	1.9625	2.0070	.49397	.47784	.52035

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3182.3	60735.	6531.4
Stddev	8.8	174.	75.2
%RSD	.27768	.28657	1.1520

#1	3188.5	60612.	6584.6
#2	3176.1	60858.	6478.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0002	.00479	.00082	.03781	.16703	-0.0012	-0.00647	57.161	.00036
Stddev	.00020	.00015	.00186	.00176	.00103	.00010	.00073	.436	.00013
%RSD	1162.2	3.0337	227.35	4.6503	.61398	83.221	11.346	.76302	37.356

#1	.00013	.00469	.00213	.03906	.16631	-.00005	-.00699	56.852	.00045
#2	-.00016	.00489	-.00050	.03657	.16776	-.00019	-.00595	57.469	.00026

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00116	.00102	.00160	.10758	4.8924	.02336	10.403	.00242	-0.00051
Stddev	.00016	.00023	.00046	.00288	.1232	.00253	.032	.00000	.00017
%RSD	14.002	22.791	28.935	2.6807	2.5177	10.848	.31095	.06900	33.179

#1	-.00127	.00118	.00192	.10554	4.8053	.02157	10.426	.00242	-.00039
#2	-.00104	.00085	.00127	.10962	4.9795	.02515	10.380	.00242	-.00063

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 {57}	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.9115	W 10.907	-0.00047	.01937	.00667	5.6519	-0.00272	.01373	23.734
Stddev	.0607	.163	.00005	.00142	.00093	.1540	.00071	.00214	.478
%RSD	.61244	1.4983	9.9608	7.3354	13.938	2.7256	26.050	15.560	2.0139

#1	9.8686	11.023	-.00050	.01836	.00601	5.7609	-.00322	.01222	23.396
#2	9.9545	10.792	-.00043	.02037	.00732	5.5430	-.00222	.01524	24.072

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		500.00							
Low Limit		11.000							

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.790	.00062	.27586	-0.00138	-0.00049	-0.00408	-0.03114	.00710	.12507
Stddev	1.023	.00072	.00235	.00077	.00016	.00047	.00464	.00002	.00089
%RSD	2.0139	116.33	.85011	55.970	32.290	11.449	14.898	.26122	.70941

#1	50.067	.00113	.27421	-.00192	-.00038	-.00441	-.02786	.00711	.12445
#2	51.514	.00011	.27752	-.00083	-.00060	-.00375	-.03442	.00708	.12570

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 {99}
Units	ppm
Avg	.00085
Stddev	.00276
%RSD	325.88

#1	.00279
#2	-.00110

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69835-C-1-A Acquired: 6/5/2015 14:07:08 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 280167 6010C

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	3247.9	62254.	6552.8
Stddev	14.8	152.	20.9
%RSD	.45590	.24418	.31920
#1	3237.4	62362.	6567.6
#2	3258.4	62147.	6538.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00047	.00465	.00073	.00746	.03398	-.00012	-.00139	11.556	-.00012
Stddev	.00028	.00085	.00042	.00026	.00030	.00009	.00039	.082	.00002
%RSD	59.238	18.326	57.107	3.5026	.88592	77.021	27.796	.71035	20.120

#1	.00027	.00525	.00103	.00727	.03376	-.00005	-.00112	11.498	-.00013
#2	.00066	.00405	.00044	.00764	.03419	-.00018	-.00166	11.614	-.00010

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	.00048	.00128	.02841	1.0518	.00668	2.1379	.00068	-.00059
Stddev	.00044	.00012	.00049	.00337	.0726	.00019	.0406	.00001	.00006
%RSD	361.55	25.630	38.322	11.881	6.9000	2.7754	1.9008	1.9859	9.7663

#1	.00019	.00039	.00163	.02602	1.0005	.00655	2.1667	.00067	-.00063
#2	-.00043	.00057	.00093	.03079	1.1031	.00681	2.1092	.00069	-.00055

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0588	-.00007	.00399	.00044	1.0931	.00264	.00542	4.6132	9.8723
Stddev	.0399	.00037	.00195	.00155	.0029	.00159	.00021	.0918	.1964
%RSD	1.9384	536.23	48.812	354.70	.26455	60.143	3.9531	1.9897	1.9897

#1	2.0305	.00019	.00261	-.00066	1.0952	.00152	.00557	4.5483	9.7334
#2	2.0870	-.00033	.00537	.00153	1.0911	.00376	.00527	4.6781	10.011

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00348	.05658	.00007	-.00014	-.00187	-.01475	.00089	.02836	.00324
Stddev	.00021	.00124	.00159	.00023	.00217	.03378	.00010	.00015	.00086
%RSD	6.0306	2.1893	2416.2	167.91	116.09	229.03	11.249	.52752	26.461

#1	.00363	.05570	-.00106	.00003	-.00340	.00914	.00082	.02847	.00385
#2	.00333	.05745	.00119	-.00030	-.00033	-.03864	.00096	.02826	.00264

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3275.8	62782.	6539.9
Stddev	1.0	10.	29.8
%RSD	.02905	.01515	.45563

#1	3276.4	62789.	6561.0
#2	3275.1	62776.	6518.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05182	1.8601	.96499	1.0354	2.1527	.04791	F 2.0011	105.00	.09936
Stddev	.00058	.0077	.00537	.0020	.0171	.00033	.0021	.84	.00013
%RSD	1.1214	.41283	.55624	.18970	.79291	.68706	.10268	.80289	.13349

#1	.05141	1.8656	.96119	1.0340	2.1406	.04767	2.0026	104.41	.09927
#2	.05223	1.8547	.96878	1.0368	2.1647	.04814	1.9997	105.60	.09946

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48300	W .18644	.24789	1.0496	55.125	1.0209	58.856	.49331	.98058
Stddev	.00121	.00011	.00002	.0157	.467	.0053	.129	.00052	.00330
%RSD	.25140	.05886	.00871	1.4917	.84629	.51670	.21910	.10642	.33695

#1	.48386	.18652	.24790	1.0386	54.795	1.0171	58.948	.49368	.98292
#2	.48214	.18636	.24787	1.0607	55.455	1.0246	58.765	.49294	.97824

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	62.868	.47840	W 9.9818	.49354	7.6575	.50468	1.9784	32.735	70.052
Stddev	.796	.00251	.0031	.00172	.0091	.00367	.0177	.255	.545
%RSD	1.2659	.52441	.03070	.34840	.11904	.72801	.89385	.77819	.77819

#1	62.305	.48017	9.9796	.49476	7.6639	.50208	1.9659	32.555	69.667
#2	63.431	.47662	9.9839	.49233	7.6510	.50728	1.9909	32.915	70.438

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9010	1.2472	.98083	.98264	1.8887	2.0578	.50396	.59317	.50972
Stddev	.0046	.0087	.00227	.00144	.0052	.0123	.00105	.00156	.01037
%RSD	.24150	.69574	.23097	.14669	.27541	.59947	.20874	.26259	2.0345

#1	1.8977	1.2410	.98244	.98162	1.8851	2.0491	.50321	.59207	.50239
#2	1.9042	1.2533	.97923	.98366	1.8924	2.0666	.50470	.59427	.51705

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3132.0	59964.	6438.9
Stddev	8.7	130.	50.3
%RSD	.27833	.21708	.78181

#1	3125.9	59872.	6474.5
#2	3138.2	60056.	6403.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05266	1.8601	.97112	1.0410	2.1727	.04817	F 2.0081	105.57	.09996
Stddev	.00010	.0010	.00425	.0026	.0158	.00022	.0041	.74	.00029
%RSD	.19406	.05662	.43780	.25313	.72540	.45013	.20225	.70373	.29037

#1	.05259	1.8609	.97412	1.0429	2.1616	.04802	2.0110	105.04	.10016
#2	.05274	1.8594	.96811	1.0392	2.1838	.04832	2.0052	106.09	.09975

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48493	W .18736	.25135	1.0740	55.499	1.0320	59.559	.49901	.98340
Stddev	.00109	.00042	.00059	.0158	.184	.0049	.037	.00085	.00130
%RSD	.22466	.22297	.23486	1.4748	.33240	.47013	.06250	.17031	.13206

#1	.48570	.18766	.25177	1.0628	55.369	1.0286	59.586	.49961	.98432
#2	.48416	.18707	.25093	1.0852	55.630	1.0354	59.533	.49841	.98248

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	63.460	.48065	W 10.035	.49666	7.6464	.50633	1.9785	32.771	70.129
Stddev	.524	.00110	.015	.00085	.0144	.00070	.0168	.126	.269
%RSD	.82554	.22927	.15021	.17121	.18763	.13861	.84926	.38307	.38307

#1	63.089	.47987	10.046	.49606	7.6565	.50583	1.9903	32.682	69.940
#2	63.830	.48143	10.025	.49726	7.6362	.50682	1.9666	32.860	70.319

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9100	1.2563	.99114	.99254	1.9089	2.0729	.51087	.59833	.51624
Stddev	.0080	.0074	.00115	.00089	.0004	.0112	.00060	.00984	.00574
%RSD	.41964	.58629	.11593	.08952	.01965	.53999	.11751	1.6451	1.1118

#1	1.9157	1.2511	.99033	.99317	1.9086	2.0808	.51129	.60529	.51218
#2	1.9043	1.2615	.99195	.99191	1.9091	2.0650	.51044	.59137	.52030

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3147.1	60087.	6495.2
Stddev	3.2	78.	14.9
%RSD	.10059	.12949	.22879

#1	3149.3	60142.	6505.7
#2	3144.8	60032.	6484.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04926	.91830	.18287	.13376	.25993	.04663	-.00624	74.190	.04847
Stddev	.00023	.00331	.00054	.00101	.00229	.00022	.00042	.458	.00046
%RSD	.46433	.36029	.29530	.75456	.88167	.47570	6.7165	.61695	.95439

#1	.04942	.91596	.18325	.13447	.25831	.04648	-.00654	73.866	.04880
#2	.04910	.92064	.18249	.13305	.26155	.04679	-.00594	74.513	.04814

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04595	.04637	.04841	1.0661	23.850	.12277	28.688	.05051	.04545
Stddev	.00004	.00056	.00028	.0022	.224	.00190	.108	.00014	.00001
%RSD	.09075	1.2035	.57813	.20327	.94123	1.5465	.37669	.27615	.01537

#1	.04592	.04677	.04860	1.0645	23.691	.12143	28.764	.05061	.04545
#2	.04598	.04598	.04821	1.0676	24.008	.12411	28.611	.05041	.04546

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	30.564	.04601	1.9040	.10239	5.5485	.09814	.19870	28.053	60.034
Stddev	.337	.00039	.0241	.00023	.0196	.00023	.00472	.321	.687
%RSD	1.1013	.84312	1.2635	.22292	.35233	.22938	2.3756	1.1449	1.1449

#1	30.326	.04628	1.9210	.10223	5.5623	.09798	.20204	27.826	59.548
#2	30.802	.04574	1.8870	.10255	5.5347	.09830	.19536	28.280	60.520

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09264	.31553	.18782	.04741	.18468	.47666	.05448	.31855	.05443
Stddev	.00033	.00219	.00155	.00019	.00135	.04340	.00057	.00064	.00465
%RSD	.36020	.69365	.82352	.39284	.72925	9.1046	1.0427	.20181	8.5506

#1	.09288	.31399	.18673	.04754	.18373	.50735	.05489	.31901	.05114
#2	.09241	.31708	.18891	.04728	.18563	.44598	.05408	.31810	.05772

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3191.3	60771.	6497.7
Stddev	10.2	122.	.6
%RSD	.31946	.20012	.00979

#1	3198.5	60857.	6497.3
#2	3184.1	60685.	6498.2

Sample Name: 280-69890-B-1-A Acquired: 6/5/2015 14:19:46 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280167 6010C

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00120	.00824	-.00313	.03458	.10012	-.00010	-.00315	42.038	.00028
Stddev	.00088	.00000	.00047	.00063	.00093	.00016	.00171	.250	.00020
%RSD	73.151	.03418	14.938	1.8129	.92710	156.46	54.172	.59494	70.163

#1	.00182	.00824	-.00346	.03503	.09946	.00001	-.00195	41.861	.00042
#2	.00058	.00824	-.00280	.03414	.10077	-.00021	-.00436	42.215	.00014

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00135	.00254	.00366	.00430	8.0110	.01479	6.6157	.00030	-.00015
Stddev	.00008	.00005	.00012	.00014	.0867	.00272	.0040	.00004	.00035
%RSD	5.9385	1.7778	3.3953	3.3655	1.0823	18.378	.06067	13.240	231.19

#1	-.00129	.00257	.00375	.00441	7.9497	.01671	6.6128	.00033	.00010
#2	-.00140	.00251	.00358	.00420	8.0723	.01287	6.6185	.00028	-.00040

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.8790	-.00047	.00801	.00498	2.8192	.00322	.00970	26.725	57.193
Stddev	.0372	.00015	.00386	.00034	.0514	.00232	.00144	.273	.583
%RSD	.41918	30.865	48.213	6.8057	1.8227	71.915	14.853	1.0200	1.0200

#1	8.8526	-.00037	.01074	.00522	2.8556	.00486	.01072	26.533	56.780
#2	8.9053	-.00058	.00528	.00474	2.7829	.00158	.00868	26.918	57.605

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00064	.26732	.00084	-.00016	-.00527	-.02265	.00698	.03676	-.00001
Stddev	.00089	.00178	.00216	.00041	.00114	.02366	.00004	.00102	.00085
%RSD	139.63	.66512	256.73	251.15	21.564	104.42	.52497	2.7679	8528.5

#1	-.00126	.26606	-.00069	.00013	-.00447	-.00593	.00696	.03748	.00059
#2	-.00001	.26857	.00237	-.00045	-.00608	-.03938	.00701	.03604	-.00061

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3236.9	62243.	6537.5
Stddev	3.1	168.	9.3
%RSD	.09528	.27045	.14207

#1	3239.1	62124.	6544.1
#2	3234.7	62362.	6531.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0072	.00126	-0.00158	.02961	.09990	-0.00005	-0.00438	51.352	.00056
Stddev	.00056	.00061	.00236	.00053	.00018	.00002	.00366	.221	.00021
%RSD	77.074	48.650	148.71	1.7985	.18318	52.386	83.554	.42969	37.121

#1	-0.00033	.00082	.00008	.02924	.09977	-0.00003	-0.00697	51.196	.00070
#2	-0.00112	.00169	-.00325	.02999	.10003	-0.00006	-0.00179	51.508	.00041

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0066	.00105	.00940	.54611	4.3326	.01956	11.821	.00948	-0.0073
Stddev	.00014	.00010	.00057	.00072	.0448	.00076	.013	.00005	.00003
%RSD	20.813	9.1994	6.0462	.13148	1.0349	3.8925	.10992	.57357	3.5268

#1	-0.00056	.00098	.00899	.54662	4.3009	.02010	11.812	.00952	-0.0071
#2	-0.00076	.00112	.00980	.54560	4.3643	.01902	11.831	.00945	-0.0074

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.9180	.00072	.01349	.00574	4.9367	.00110	.01304	23.263	49.784
Stddev	.0275	.00023	.00061	.00037	.0562	.00170	.00569	.141	.302
%RSD	.39784	32.557	4.5118	6.5268	1.1376	154.89	43.622	.60651	.60651

#1	6.8986	.00089	.01306	.00600	4.8969	.00230	.00902	23.363	49.997
#2	6.9375	.00056	.01392	.00547	4.9764	-0.00010	.01706	23.164	49.570

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00122	.35724	.00002	-0.00065	-0.00269	-0.01263	.00530	.17624	-0.00021
Stddev	.00090	.00171	.00044	.00028	.00060	.03240	.00037	.00220	.00016
%RSD	74.009	.47840	2416.4	43.937	22.161	256.51	7.0203	1.2494	78.826

#1	.00185	.35603	.00033	-.00085	-.00226	-.03555	.00556	.17780	-0.0009
#2	.00058	.35845	-.00029	-.00045	-.00311	.01028	.00503	.17468	-0.0032

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3224.9	61947.	6505.0
Stddev	4.0	261.	10.7
%RSD	.12543	.42130	.16394

#1	3227.7	61762.	6497.5
#2	3222.0	62131.	6512.5

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00296	48.084	-.00287	-.00021	-.00010	.00006	.98147	.03820	-.00019	-.00120	.00061
Stddev	.00045	.206	.00714	.00019	.00003	.00001	.00020	.00439	.00019	.00020	.00021
%RSD	15.191	.42936	248.30	91.029	25.318	20.316	.02015	11.491	95.583	16.948	34.991

#1	.00328	47.938	.00217	-.00008	-.00012	.00005	.98133	.04130	-.00032	-.00106	.00046
#2	.00264	48.230	-.00792	-.00035	-.00008	.00007	.98161	.03510	-.00006	-.00134	.00076

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00238	47.445	.12453	.00108	-.01840	-.00124	-.00035	243.30	.00131	.00458	.00332
Stddev	.00050	.209	.01837	.00226	.00272	.00004	.00050	.79	.00037	.00609	.00158
%RSD	20.941	.44063	14.752	208.54	14.763	3.0069	142.37	.32609	28.417	133.15	47.525

#1	.00273	47.297	.13752	-.00051	-.01648	-.00121	-.00070	242.74	.00105	.00027	.00221
#2	.00203	47.593	.11154	.00268	-.02032	-.00126	.00000	243.86	.00158	.00889	.00444

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.7490	-.00971	.00541	-.02359	-.05047	-.00300	.00043	4.8518	-.01852	.00175	10.288
Stddev	.0429	.00067	.00202	.01873	.04008	.00026	.00020	.0015	.00004	.00128	.144
%RSD	.90259	6.9314	37.447	79.409	79.409	8.5475	47.167	.03109	.19860	73.331	1.4024

#1	4.7187	-.01019	.00398	-.01034	-.02213	-.00318	.00029	4.8508	-.01849	.00265	10.390
#2	4.7793	-.00924	.00684	-.03683	-.07882	-.00282	.00058	4.8529	-.01854	.00084	10.186

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	5.0000										
Range	-5.0000%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00300	.00231	.08066
Stddev	.00019	.00054	.00117
%RSD	6.2326	23.572	1.4554

#1	.00313	.00269	.07983
#2	.00286	.00192	.08149

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3174.5	59978.	6398.3
Stddev	1.3	3.	23.2
%RSD	.03955	.00478	.36221

#1	3173.6	59976.	6381.9
#2	3175.4	59980.	6414.7

Sample Name: CCV-3305006 Acquired: 6/5/2015 14:27:37 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50755	.49410	.94967	.48840	.49407	.47758	-.00269	4.9569	.48741	.49994	.48369	.48979	2.4141
Stddev	.00229	.00118	.01262	.00527	.00421	.00383	.00149	.0395	.00093	.00240	.00424	.00032	.0110
%RSD	.45025	.23946	1.3292	1.0793	.85160	.80142	55.287	.79713	.19130	.48075	.87657	.06550	.45401

#1	.50593	.49326	.94074	.48467	.49110	.47487	-.00164	4.9290	.48675	.49824	.48069	.49002	2.4064
#2	.50917	.49493	.95859	.49213	.49705	.48029	-.00375	4.9848	.48807	.50164	.48669	.48956	2.4219

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.776	.98927	19.857	.49522	.47133	5.0089	.49850	.95900	.98959	-.00276	.97161	.95771	4.8572
Stddev	.321	.01114	.002	.00077	.00196	.0464	.00343	.00510	.00325	.00075	.00359	.00932	.0898
%RSD	.64512	1.1262	.01123	.15622	.41548	.92730	.68765	.53167	.32813	27.322	.36990	.97303	1.8498

#1	49.549	.98139	19.855	.49576	.46994	4.9761	.49608	.95540	.98729	-.00223	.96907	.95112	4.7936
#2	50.003	.99715	19.858	.49467	.47271	5.0418	.50093	.96261	.99189	-.00329	.97415	.96430	4.9207

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.394	.94977	.48295	-.00088	.48866	.98881	-.02865	.49186	.48557	.49258
Stddev	.192	.00487	.00363	.00020	.00123	.00542	.00834	.00628	.00619	.00260
%RSD	1.8498	.51270	.75158	22.280	.25167	.54776	29.113	1.2775	1.2743	.52697

#1	10.258	.94633	.48038	-.00102	.48952	.98498	-.02275	.49630	.48994	.49074
#2	10.530	.95321	.48551	-.00074	.48779	.99264	-.03455	.48742	.48119	.49441

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3238.7	61828.	6432.2
Stddev	15.9	101.	3.1
%RSD	.48989	.16311	.04832

#1	3227.5	61756.	6430.0
#2	3249.9	61899.	6434.4

Sample Name: CCB Acquired: 6/5/2015 14:30:06 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	-.00011	-.00083	.00022	-.00025	-.00013	-.00247	-.00137	-.00016	-.00024	.00018	.00035
Stddev	.00011	.00015	.00071	.00122	.00048	.00017	.00178	.00072	.00016	.00007	.00009	.00080
%RSD	69.034	140.46	85.759	548.34	195.18	127.26	71.986	52.789	98.972	31.604	53.029	225.23

#1	.00008	.00000	-.00033	-.00064	-.00058	-.00001	-.00373	-.00086	-.00028	-.00018	.00011	.00092
#2	.00024	-.00022	-.00133	.00109	.00009	-.00025	-.00121	-.00188	-.00005	-.00029	.00024	-.00021

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00018	.11594	.00136	-.00500	-.00001	.00039	.06497	-.00024	.00183	.00120	.00201	.00096
Stddev	.00024	.01847	.00020	.00084	.00010	.00015	.01257	.00005	.00162	.00028	.00366	.00194
%RSD	134.58	15.929	14.621	16.772	1823.1	37.144	19.342	19.728	88.553	23.041	182.12	201.55

#1	-.00034	.12900	.00122	-.00559	.00007	.00029	.07385	-.00027	.00068	.00140	-.00058	.00233
#2	-.00001	.10288	.00150	-.00441	-.00008	.00050	.05608	-.00021	.00298	.00101	.00460	-.00041

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F.00853	.00674	.01443	-.00041	.00006	.00178	-.00082	.00154	-.02862	-.00013	-.00045	.00140
Stddev	.00114	.01815	.03884	.00049	.00007	.00055	.00000	.00071	.00884	.00051	.00068	.00276
%RSD	13.421	269.17	269.17	118.11	111.61	30.992	.03187	45.954	30.888	397.57	151.12	197.97

#1	.00934	.01958	.04189	-.00007	.00001	.00217	-.00082	.00104	-.03488	-.00049	.00003	.00335
#2	.00772	-.00609	-.01303	-.00076	.00011	.00139	-.00082	.00205	-.02237	.00023	-.00094	-.00056

Check ?	Chk Fail	Chk Pass										
High Limit	.00500											
Low Limit	-.00500											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3267.8	62422.	6414.5
Stddev	9.8	279.	78.8
%RSD	.29857	.44724	1.2280

#1	3274.7	62224.	6470.2
#2	3260.9	62619.	6358.8

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01048	.10534	.01275	.10021	.01010	.00087	.10923	.21906	.00508	.01078	.01018	.01563
Stddev	.00034	.00088	.00112	.00205	.00076	.00005	.00033	.00397	.00003	.00025	.00021	.00022
%RSD	3.2022	.83784	8.7975	2.0506	7.5260	6.3263	.30655	1.8141	.49724	2.3611	2.0423	1.4305

#1	.01024	.10471	.01195	.09876	.00956	.00091	.10947	.22187	.00506	.01096	.01004	.01548
#2	.01072	.10596	.01354	.10167	.01064	.00083	.10900	.21625	.00509	.01060	.01033	.01579

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10040	3.2484	F .01379	.21385	.01073	.01883	1.0869	.04160	2.8304	.00902	.00239	.00886
Stddev	.00088	.0609	.00027	.00207	.00019	.00009	.0449	.00027	.0384	.00006	.00533	.00006
%RSD	.87713	1.8743	1.9565	.96579	1.7409	.47544	4.1334	.64084	1.3586	.63324	222.97	.66039

#1	.10102	3.2915	.01398	.21531	.01086	.01877	1.1186	.04179	2.8032	.00898	-.00138	.00890
#2	.09977	3.2054	.01360	.21239	.01060	.01889	1.0551	.04141	2.8576	.00906	.00616	.00882

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .02214	.48403	1.0358	.09743	.01002	.01534	.00999	.01698	.04974	.00940	.02274	.01447
Stddev	.00273	.02570	.0550	.00192	.00002	.00135	.00020	.00173	.00613	.00016	.00041	.00168
%RSD	12.321	5.3086	5.3086	1.9755	.23669	8.8228	1.9849	10.205	12.321	1.6663	1.7967	11.642

#1	.02407	.50220	1.0747	.09607	.01003	.01630	.00985	.01576	.05408	.00929	.02245	.01566
#2	.02021	.46586	.99694	.09879	.01000	.01439	.01013	.01821	.04541	.00951	.02303	.01328

Check ?	Chk Fail	Chk Pass										
Value	.01500											
Range	30.000%											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3311.8	63288.	6535.7
Stddev	10.5	116.	15.5
%RSD	.31640	.18397	.23767

#1	3304.3	63371.	6546.7
#2	3319.2	63206.	6524.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0003	.00149	.00083	-0.00027	-0.00035	-0.00018	.00027	.00745	-0.00022
Stddev	.00046	.00037	.00097	.00057	.00008	.00002	.00097	.00332	.00005
%RSD	1515.7	24.786	117.43	209.63	22.159	12.702	354.84	44.581	21.657

#1	-0.00036	.00175	.00152	-0.00067	-0.00041	-0.00017	-0.00041	.00980	-0.00026
#2	.00030	.00123	.00014	.00013	-0.00030	-0.00020	.00096	.00510	-0.00019

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.00034	.00065	.00107	.12529	.00179	-0.00597	.00015	-0.00019
Stddev	.00021	.00004	.00086	.00201	.00598	.00112	.00138	.00009	.00008
%RSD	206.96	13.273	133.28	188.77	4.7691	62.720	23.056	60.910	40.506

#1	.00025	.00031	.00004	.00249	.12952	.00099	-0.00694	.00021	-0.00025
#2	-0.00005	.00037	.00126	-0.00036	.12107	.00258	-0.00499	.00008	-0.00014

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05156	-0.00028	.00131	.00013	.00618	.00025	.00491	.00674	.01442
Stddev	.01293	.00012	.00089	.00199	.00171	.00098	.00213	.01820	.03894
%RSD	25.082	44.565	67.670	1504.5	27.642	397.32	43.331	269.98	269.98

#1	.04242	-0.00037	.00194	-0.00127	.00497	.00094	.00341	-0.00613	-0.01311
#2	.06071	-0.00019	.00068	.00154	.00739	-0.00044	.00642	.01961	.04196

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00027	.00009	.00158	-0.00018	.00139	-0.02400	-0.00039	.00097	.00192
Stddev	.00078	.00003	.00391	.00013	.00159	.03531	.00008	.00050	.00113
%RSD	287.20	30.504	247.71	74.888	114.22	147.10	21.173	51.723	58.857

#1	.00028	.00011	-0.00119	-0.00008	.00251	.00096	-0.00045	.00133	.00112
#2	-0.00082	.00007	.00434	-0.00027	.00027	-0.04897	-0.00033	.00062	.00272

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3299.8	63431.	6522.5
Stddev	1.9	306.	114.4
%RSD	.05896	.48227	1.7537

#1	3298.4	63215.	6603.4
#2	3301.2	63647.	6441.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05103	1.8462	.94173	.97851	1.9530	.04706	1.9755	47.562	.09691
Stddev	.00038	.0123	.00341	.00265	.0158	.00002	.0086	.606	.00017
%RSD	.73722	.66397	.36197	.27133	.80870	.04146	.43628	1.2750	.17752

#1	.05130	1.8548	.94414	.98039	1.9418	.04707	1.9816	47.133	.09703
#2	.05077	1.8375	.93932	.97664	1.9642	.04704	1.9694	47.991	.09679

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47794	F.18415	.24363	.95337	49.325	.97595	48.644	.48869	.95578
Stddev	.00089	.00079	.00200	.00182	.568	.00871	.234	.00185	.00338
%RSD	.18610	.42833	.81937	.19138	1.1519	.89290	.48164	.37820	.35393

#1	.47857	.18359	.24504	.95208	48.923	.96979	48.479	.48738	.95817
#2	.47731	.18470	.24222	.95466	49.727	.98211	48.810	.49000	.95339

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.800	.47489	9.7848	.48997	1.8947	.49532	1.9521	9.6501	20.651
Stddev	.483	.00031	.0247	.00140	.0064	.00213	.0141	.1710	.366
%RSD	.93237	.06443	.25252	.28614	.33552	.42974	.72102	1.7719	1.7719

#1	51.458	.47511	9.8023	.49096	1.8992	.49381	1.9421	9.5292	20.392
#2	52.141	.47467	9.7674	.48898	1.8902	.49682	1.9620	9.7710	20.910

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8760	.94882	.96301	.96760	1.9231	1.9973	.49437	.47376	.50245
Stddev	.0130	.00638	.00216	.00299	.0096	.0302	.00322	.00115	.00820
%RSD	.69442	.67241	.22457	.30885	.49792	1.5093	.65056	.24347	1.6322

#1	1.8668	.94431	.96149	.96549	1.9164	1.9760	.49210	.47295	.49665
#2	1.8852	.95333	.96454	.96971	1.9299	2.0187	.49665	.47458	.50825

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3181.7	60274.	6478.3
Stddev	10.8	406.	139.0
%RSD	.34044	.67321	2.1456

#1	3174.1	60561.	6576.6
#2	3189.4	59987.	6380.0

Sample Name: 280-69795-A-5-B Acquired: 6/5/2015 14:39:59 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280301 6010C (Cr) Q4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00049	.00296	.00316	.33946	.24413	-0.00010	-0.00472	105.89	.00000
Stddev	.00001	.00059	.00320	.00269	.00355	.00006	.00025	1.54	.00012
%RSD	1.6774	20.020	101.16	.79345	1.4522	55.549	5.2514	1.4586	14449.

#1	-0.00050	.00254	.00090	.33756	.24163	-0.00014	-0.00454	104.80	.00008
#2	-0.00048	.00338	.00542	.34136	.24664	-0.00006	-0.00489	106.98	-0.00008

Check ?
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00048	.00373	.00387	.04845	6.1041	.02198	20.463	.20205	.00939
Stddev	.00037	.00009	.00009	.00352	.0431	.00203	.071	.00106	.00007
%RSD	76.620	2.4374	2.3089	7.2593	.70556	9.2292	.34886	.52486	.71062

#1	.00074	.00379	.00393	.04597	6.0736	.02055	20.514	.20280	.00944
#2	.00022	.00367	.00380	.05094	6.1345	.02342	20.413	.20130	.00934

Check ?
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	69.579	.01396	.03740	.00971	86.137	.00348	.00704	5.2254	11.182
Stddev	.752	.00001	.00140	.00022	.137	.00115	.00269	.0360	.077
%RSD	1.0811	.05808	3.7560	2.3052	.15907	32.968	38.144	.68962	.68962

#1	69.047	.01396	.03840	.00955	86.234	.00267	.00894	5.1999	11.128
#2	70.111	.01395	.03641	.00987	86.040	.00429	.00514	5.2508	11.237

Check ?
 High Limit
 Low Limit

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00094	.81163	-.00068	-.00064	-.00460	-.02102	.00204	.00640	.00173
Stddev	.00070	.01230	.00342	.00057	.00076	.00383	.00000	.00009	.00135
%RSD	75.073	1.5152	501.57	88.108	16.553	18.208	.16678	1.4069	78.227

#1	.00044	.80294	-.00310	-.00105	-.00406	-.01831	.00204	.00634	.00268
#2	.00144	.82033	.00174	-.00024	-.00514	-.02373	.00204	.00647	.00077

Check ?
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3148.4	59899.	6475.6
Stddev	1.5	194.	35.8
%RSD	.04840	.32384	.55361

#1	3147.4	59761.	6500.9
#2	3149.5	60036.	6450.2

Sample Name: 280-69795-A-5-B SD@5 Acquired: 6/5/2015 14:42:37 Type: Unk

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment: 280301 6010C (Cr) Q4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00040	.00078	.00505	.06796	.05005	-.00005	-.00227	21.360	.00015
Stddev	.00070	.00011	.00159	.00092	.00002	.00005	.00242	.164	.00014
%RSD	176.77	14.553	31.589	1.3561	.03902	93.054	106.41	.76559	94.572

#1	-.00010	.00087	.00392	.06861	.05003	-.00002	-.00398	21.244	.00005
#2	.00089	.00070	.00618	.06731	.05006	-.00008	-.00056	21.476	.00025

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00022	.00097	.00072	.02332	1.3380	.00600	4.2101	.04158	.00123
Stddev	.00027	.00013	.00038	.00072	.0254	.00014	.0484	.00028	.00003
%RSD	123.59	13.825	52.126	3.0748	1.8969	2.3680	1.1492	.66479	2.4089

#1	.00040	.00088	.00046	.02281	1.3201	.00590	4.1759	.04139	.00125
#2	.00003	.00107	.00099	.02383	1.3560	.00610	4.2443	.04178	.00121

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.431	.00319	.00733	.00413	17.026	.00038	.01040	1.0349	2.2148
Stddev	.131	.00046	.00293	.00009	.182	.00071	.00473	.0258	.0553
%RSD	.91089	14.540	39.899	2.1079	1.0684	184.60	45.495	2.4945	2.4945

#1	14.524	.00352	.00526	.00407	17.155	-.00012	.01374	1.0167	2.1757
#2	14.338	.00286	.00940	.00419	16.898	.00088	.00705	1.0532	2.2538

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00346	.16355	.00193	-.00053	-.00184	-.01526	.00037	.00289	.00018
Stddev	.00058	.00094	.00258	.00001	.00050	.00939	.00056	.00090	.00115
%RSD	16.796	.57660	133.34	1.8351	27.396	61.529	149.26	31.127	632.25

#1	.00305	.16288	.00011	-.00054	-.00148	-.02190	-.00002	.00352	-.00063
#2	.00387	.16421	.00375	-.00052	-.00220	-.00862	.00077	.00225	.00100

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774						
Line	224.306 {450}	360.073 {94}	377.433 {89}						
Units	Cts/S	Cts/S	Cts/S						
Avg	3233.9	61843.	6468.8						
Stddev	6.4	194.	50.4						
%RSD	.19773	.31341	.77987						

#1	3229.4	61980.	6504.5						
#2	3238.4	61706.	6433.1						

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05128	1.8022	.96027	1.3126	2.2184	.04676	F 1.9536	151.69	.09774
Stddev	.00117	.0017	.00314	.0019	.0293	.00067	.0067	2.06	.00085
%RSD	2.2788	.09675	.32677	.14342	1.3184	1.4311	.34193	1.3557	.87292

#1	.05211	1.8010	.95805	1.3112	2.1977	.04629	1.9489	150.24	.09714
#2	.05046	1.8035	.96249	1.3139	2.2390	.04724	1.9583	153.15	.09834

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47593	W .18219	.25004	.98199	56.181	1.0075	68.043	.68145	.97772
Stddev	.00053	.00046	.00000	.00904	.640	.0142	.089	.00020	.00045
%RSD	.11241	.25186	.00124	.92074	1.1398	1.4102	.13057	.02977	.04636

#1	.47630	.18187	.25004	.97560	55.728	.99750	68.106	.68160	.97740
#2	.47555	.18252	.25005	.98838	56.634	1.0176	67.980	.68131	.97804

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	119.04	.48380	W 10.044	.48256	87.202	.50407	1.9560	14.928	31.946
Stddev	3.92	.00076	.010	.00009	.390	.00034	.0046	.109	.234
%RSD	3.2922	.15612	.09491	.01887	.44727	.06680	.23698	.73319	.73319

#1	116.27	.48433	10.037	.48249	86.926	.50383	1.9593	14.851	31.781
#2	121.81	.48327	10.050	.48262	87.478	.50431	1.9527	15.006	32.112

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8740	1.7626	.96443	.97450	1.8335	2.0510	.50052	.47210	.51292
Stddev	.0000	.0227	.00022	.00017	.0098	.0182	.00352	.00360	.00787
%RSD	.00022	1.2900	.02264	.01755	.53155	.88715	.70375	.76162	1.5337

#1	1.8740	1.7466	.96427	.97462	1.8266	2.0381	.49802	.47464	.50735
#2	1.8740	1.7787	.96458	.97438	1.8404	2.0638	.50301	.46955	.51848

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3080.1	58813.	6451.5
Stddev	2.8	204.	67.5
%RSD	.09128	.34749	1.0469

#1	3078.1	58958.	6499.2
#2	3082.1	58669.	6403.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05312	1.8664	.99597	1.3570	2.3003	.04889	F 2.0273	156.61	.10142
Stddev	.00008	.0008	.00327	.0017	.0078	.00023	.0019	.51	.00008
%RSD	.15943	.04254	.32788	.12243	.33909	.46897	.09613	.32640	.07535

#1	.05306	1.8659	.99366	1.3581	2.2948	.04905	2.0286	156.25	.10147
#2	.05318	1.8670	.99828	1.3558	2.3058	.04873	2.0259	156.97	.10136

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49396	W .18739	.26120	1.0271	58.305	1.0512	70.330	.70497	1.0116
Stddev	.00035	.00042	.00129	.0106	.109	.0055	.028	.00078	.0015
%RSD	.07112	.22534	.49488	1.0305	.18676	.52009	.03993	.11124	.15363

#1	.49372	.18709	.26028	1.0346	58.228	1.0473	70.349	.70552	1.0127
#2	.49421	.18769	.26211	1.0197	58.382	1.0551	70.310	.70441	1.0105

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	121.33	.50219	W 10.399	.49970	89.390	.51932	2.0092	15.395	32.945
Stddev	.22	.00084	.011	.00094	.138	.00291	.0236	.053	.113
%RSD	.18413	.16641	.10375	.18879	.15409	.55992	1.1737	.34209	.34209

#1	121.18	.50278	10.391	.49904	89.293	.52138	2.0258	15.358	32.865
#2	121.49	.50160	10.406	.50037	89.487	.51727	1.9925	15.432	33.025

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9245	1.8267	1.0052	1.0072	1.8910	2.1267	.52030	.49039	.52516
Stddev	.0264	.0047	.0004	.0027	.0277	.0024	.00094	.00151	.00655
%RSD	1.3740	.25966	.03643	.26590	1.4648	.11039	.18134	.30763	1.2463

#1	1.9432	1.8234	1.0054	1.0091	1.9106	2.1284	.51963	.49146	.52054
#2	1.9058	1.8301	1.0049	1.0053	1.8714	2.1250	.52096	.48932	.52979

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3056.2	58157.	6374.9
Stddev	6.0	390.	11.1
%RSD	.19638	.67060	.17453

#1	3051.9	57881.	6382.7
#2	3060.4	58432.	6367.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05043	.91291	.19084	.43295	.33597	.04701	-.00462	122.63	.04901
Stddev	.00003	.00098	.00069	.00067	.00479	.00065	.00164	1.61	.00035
%RSD	.06761	.10772	.36024	.15565	1.4251	1.3755	35.395	1.3150	.71299

#1	.05040	.91361	.19133	.43343	.33258	.04656	-.00346	121.49	.04876
#2	.05045	.91222	.19036	.43248	.33936	.04747	-.00578	123.77	.04926

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04754	.04838	.05268	.98471	25.581	.12019	38.810	.24544	.05566
Stddev	.00039	.00038	.00018	.01165	.350	.00248	.009	.00054	.00001
%RSD	.81051	.77544	.34456	1.1831	1.3672	2.0599	.02266	.21853	.02020

#1	.04727	.04811	.05280	.97647	25.333	.11844	38.816	.24507	.05567
#2	.04782	.04864	.05255	.99295	25.828	.12194	38.804	.24582	.05665

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	88.432	.06006	W 2.0033	.10281	84.754	.10016	.19349	9.8546	21.089
Stddev	1.397	.00056	.0010	.00188	.176	.00138	.00219	.1181	.253
%RSD	1.5802	.93815	.05263	1.8326	.20791	1.3787	1.1313	1.1982	1.1982

#1	87.444	.05966	2.0040	.10414	84.629	.10113	.19503	9.7711	20.910
#2	89.420	.06045	2.0025	.10147	84.878	.09918	.19194	9.9381	21.267

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09071	.84114	.19249	.04796	.17490	.48351	.05086	.20385	.05239
Stddev	.00031	.00837	.00085	.00047	.00284	.05602	.00034	.00285	.00001
%RSD	.34105	.99466	.44072	.98685	1.6249	11.586	.66473	1.3961	.01226

#1	.09092	.83522	.19189	.04762	.17691	.44390	.05110	.20184	.05240
#2	.09049	.84705	.19309	.04829	.17289	.52312	.05062	.20586	.05239

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3153.3	59687.	6461.7
Stddev	5.8	99.	32.1
%RSD	.18279	.16581	.49716

#1	3149.2	59617.	6484.4
#2	3157.4	59757.	6438.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00036	.00372	-.00128	.27429	.07832	-.00020	-.00652	70.287	.00005
Stddev	.00010	.00006	.00334	.00263	.00087	.00003	.00191	.614	.00019
%RSD	29.480	1.5740	260.68	.95957	1.1067	17.086	29.271	.87290	373.53

#1	.00028	.00368	.00108	.27243	.07770	-.00018	-.00786	69.853	-.00008
#2	.00043	.00376	-.00365	.27615	.07893	-.00023	-.00517	70.721	.00019

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00286	.07644	.00159	.03489	1.0271	.01882	38.680	.05441	-.00153
Stddev	.00010	.00045	.00071	.00093	.0391	.00049	.016	.00033	.00022
%RSD	3.4858	.59079	44.330	2.6728	3.8067	2.6283	.04100	.60470	14.552

#1	.00293	.07612	.00109	.03555	.99950	.01917	38.692	.05418	-.00168
#2	.00279	.07676	.00209	.03423	1.0548	.01847	38.669	.05464	-.00137

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	133.73	.46639	.00386	.00813	25.703	.00237	.01112	9.6842	20.724
Stddev	1.05	.00027	.00005	.00047	.205	.00062	.00466	.1305	.279
%RSD	.78231	.05685	1.1700	5.7962	.79695	26.321	41.936	1.3475	1.3475

#1	132.99	.46620	.00389	.00779	25.558	.00281	.01442	9.5920	20.527
#2	134.46	.46658	.00383	.00846	25.848	.00193	.00782	9.7765	20.922

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00013	.22274	.00058	-.00046	-.00708	-.04012	.00083	.00222	.00140
Stddev	.00066	.00191	.00201	.00010	.00009	.01148	.00006	.00021	.00214
%RSD	513.47	.85946	343.36	21.983	1.2400	28.615	7.0750	9.5336	153.58

#1	.00060	.22138	.00200	-.00038	-.00702	-.03201	.00087	.00237	-.00012
#2	-.00034	.22409	-.00083	-.00053	-.00715	-.04824	.00079	.00207	.00291

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3153.6	59903.	6425.6
Stddev	.9	271.	22.6
%RSD	.02970	.45299	.35246

#1	3152.9	59711.	6441.6
#2	3154.3	60094.	6409.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00012	.00038	-.00360	.12403	.12813	-.00007	-.00636	73.444	.00010
Stddev	.00032	.00050	.00062	.00069	.00029	.00017	.00476	.638	.00025
%RSD	269.94	130.82	17.334	.55795	.22713	232.41	74.783	.86854	246.06

#1	.00035	.00003	-.00316	.12354	.12833	.00005	-.00300	72.993	-.00007
#2	-.00011	.00074	-.00404	.12452	.12792	-.00020	-.00972	73.895	.00027

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00048	F 3.2199	.00135	.00194	2.3683	.02617	47.446	.00071	-.00122
Stddev	.00027	.0002	.00036	.00083	.0034	.00261	.188	.00001	.00018
%RSD	55.026	.00731	26.407	42.550	.14513	9.9645	.39713	.71047	15.200

#1	-.00067	3.2200	.00161	.00136	2.3707	.02801	47.579	.00072	-.00135
#2	-.00030	3.2197	.00110	.00253	2.3658	.02433	47.312	.00071	-.00108

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		1.0000							
Low Limit		-.02000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	163.45	.00002	.01051	.00750	26.564	.02773	.01039	9.0349	19.335
Stddev	1.36	.00012	.00374	.00131	.383	.00341	.00108	.0607	.130
%RSD	.83477	741.82	35.565	17.507	1.4425	12.282	10.434	.67177	.67177

#1	162.49	-.00007	.00787	.00657	26.293	.02533	.00962	9.0779	19.427
#2	164.42	.00010	.01316	.00843	26.835	.03014	.01116	8.9920	19.243

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00027	.27212	.00156	-.00069	-.00419	-.02845	.01019	.00056	.00214
Stddev	.00149	.00265	.00044	.00048	.00246	.02461	.00007	.00110	.00270
%RSD	544.39	.97474	28.281	69.687	58.706	86.501	.65856	196.19	126.10

#1	.00078	.27025	.00187	-.00035	-.00245	-.04585	.01024	.00133	.00023
#2	-.00133	.27400	.00125	-.00103	-.00592	-.01105	.01014	-.00022	.00405

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3116.9	59598.	6429.3
Stddev	7.5	16.	77.0
%RSD	.23956	.02690	1.1976

#1	3111.6	59586.	6483.8
#2	3122.2	59609.	6374.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00035	.00059	.00209	.12084	.12545	-.00015	-.00381	71.384	.00046
Stddev	.00030	.00002	.00254	.00034	.00158	.00002	.00011	.929	.00024
%RSD	86.683	2.6282	121.51	.27861	1.2588	13.647	2.9867	1.3009	52.115

#1	.00014	.00058	.00029	.12060	.12434	-.00016	-.00389	70.727	.00062
#2	.00056	.00060	.00389	.12108	.12657	-.00013	-.00373	72.041	.00029

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00045	F 3.1056	.00090	.00185	2.3107	.02508	46.147	.00071	-.00132
Stddev	.00010	.0116	.00040	.00128	.0983	.00111	.106	.00000	.00009
%RSD	22.303	.37301	44.408	69.242	4.2556	4.4272	.23032	.24018	7.0981

#1	-.00052	3.1138	.00062	.00276	2.2412	.02430	46.222	.00071	-.00139
#2	-.00038	3.0974	.00119	.00095	2.3802	.02587	46.072	.00071	-.00126

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		1.0000							
Low Limit		-.02000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	159.20	-.00003	.01312	.00778	26.213	.02716	.01218	8.7713	18.771
Stddev	1.69	.00017	.00031	.00162	.113	.00175	.00099	.1879	.402
%RSD	1.0586	677.93	2.3945	20.819	.43166	6.4541	8.1633	2.1425	2.1425

#1	158.01	-.00015	.01290	.00664	26.133	.02592	.01288	8.6384	18.486
#2	160.39	.00010	.01335	.00893	26.293	.02840	.01148	8.9041	19.055

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00020	.26334	.00035	-.00078	-.00460	-.03112	.01038	.00108	.00064
Stddev	.00037	.00312	.00172	.00023	.00194	.03406	.00021	.00035	.00206
%RSD	191.52	1.1839	485.44	29.208	42.170	109.45	1.9785	32.202	323.71

#1	.00007	.26114	.00157	-.00094	-.00598	-.05520	.01024	.00083	-.00082
#2	-.00046	.26555	-.00086	-.00062	-.00323	-.00703	.01053	.00132	.00209

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3135.8	59084.	6447.5
Stddev	.0	295.	38.2
%RSD	.00053	.49997	.59224

#1	3135.8	58875.	6474.5
#2	3135.8	59293.	6420.5

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00283	48.032	.00051	.00040	-.00018	.00012	.97241	.03089	-.00011	-.00111	.00086
Stddev	.00027	1.141	.00034	.00005	.00028	.00003	.00459	.00383	.00008	.00003	.00018
%RSD	9.4423	2.3746	66.313	11.328	155.80	25.148	.47181	12.412	76.515	2.5910	20.684

#1	.00302	47.226	.00074	.00037	.00002	.00014	.97565	.03360	-.00005	-.00113	.00099
#2	.00264	48.839	.00027	.00043	-.00038	.00010	.96916	.02818	-.00017	-.00109	.00073

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00149	47.621	.19676	.00211	-.02008	-.00143	-.00040	242.21	.00088	.00337	.00103
Stddev	.00009	1.390	.01839	.00099	.00430	.00014	.00018	5.67	.00010	.00278	.00071
%RSD	6.2987	2.9189	9.3472	46.791	21.411	9.7831	45.259	2.3405	11.474	82.522	69.188

#1	.00142	46.639	.20976	.00141	-.01704	-.00153	-.00027	238.20	.00080	.00140	.00153
#2	.00155	48.604	.18375	.00280	-.02312	-.00133	-.00052	246.22	.00095	.00534	.00052

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.6485	-.00735	.00474	-.02870	-.06142	-.00211	.00038	4.8065	-.01733	.00302	10.249
Stddev	.0250	.00113	.00109	.00301	.00645	.00121	.00010	.0107	.00024	.00288	.080
%RSD	.53725	15.448	23.106	10.499	10.499	57.259	24.982	.22266	1.3980	95.220	.78078

#1	4.6662	-.00654	.00551	-.02657	-.05686	-.00125	.00031	4.8141	-.01716	.00506	10.192
#2	4.6308	-.00815	.00396	-.03083	-.06598	-.00296	.00045	4.7989	-.01750	.00099	10.306

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	5.0000										
Range	-5.0000%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00302	.00084	.08672
Stddev	.00078	.00039	.00888
%RSD	25.815	45.967	10.243

#1	.00247	.00112	.08044
#2	.00358	.00057	.09300

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3246.8	60974.	6476.0
Stddev	3.5	301.	40.3
%RSD	.10770	.49429	.62163

#1	3244.3	60761.	6504.4
#2	3249.3	61188.	6447.5

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50573	.48620	.94444	.48622	.48974	.47093	-.00475	4.9106	.48178	.50115	.48596	.49074	2.3781
Stddev	.00107	.00268	.00100	.00368	.01341	.01163	.00037	.1223	.00186	.00393	.00519	.00132	.0590
%RSD	.21096	.55202	.10586	.75635	2.7374	2.4703	7.7712	2.4911	.38573	.78383	1.0670	.26855	2.4818

#1	.50649	.48810	.94515	.48882	.48026	.46270	-.00501	4.8241	.48309	.50392	.48963	.49168	2.3364
#2	.50498	.48430	.94374	.48361	.49922	.47915	-.00449	4.9971	.48046	.49837	.48230	.48981	2.4198

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.107	.97709	19.806	.49483	.47131	4.9701	.50034	.96393	.99356	.00708	.97051	.95497	4.8029
Stddev	1.153	.02604	.013	.00045	.00322	.1322	.00365	.01417	.01183	.00405	.00950	.01460	.1314
%RSD	2.3482	2.6652	.06729	.09011	.68336	2.6607	.72966	1.4697	1.1903	57.154	.97862	1.5290	2.7366

#1	48.291	.95868	19.796	.49515	.47359	4.8766	.50292	.97395	1.0019	.00994	.97722	.96529	4.7099
#2	49.922	.99550	19.815	.49452	.46903	5.0636	.49776	.95392	.98520	.00422	.96379	.94464	4.8958

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.278	.94494	.47655	-.00294	.48917	.98804	-.04367	.49906	.48428	.49445
Stddev	.281	.00943	.01191	.00010	.00011	.01377	.01989	.00136	.00071	.01197
%RSD	2.7366	.99817	2.4985	3.3150	.02162	1.3940	45.546	.27207	.14580	2.4202

#1	10.079	.95161	.46813	-.00301	.48909	.99777	-.05773	.50002	.48378	.48599
#2	10.477	.93827	.48497	-.00287	.48924	.97830	-.02960	.49810	.48478	.50291

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3262.1	62180.	6516.5
Stddev	5.2	48.	84.3
%RSD	.15919	.07690	1.2932

#1	3265.8	62213.	6576.0
#2	3258.5	62146.	6456.9

Sample Name: CCB Acquired: 6/5/2015 15:05:36 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00003	-.00025	-.00187	.00047	-.00046	-.00004	-.00127	.00255	-.00003	.00010	.00044	.00064
Stddev	.00013	.00027	.00080	.00056	.00013	.00004	.00222	.00026	.00009	.00024	.00011	.00051
%RSD	446.88	106.56	42.943	120.32	27.979	113.24	174.27	10.056	354.52	238.91	24.090	80.364

#1	-.00006	-.00044	-.00130	.00087	-.00055	-.00001	-.00285	.00237	-.00009	-.00007	.00036	.00028
#2	.00012	-.00006	-.00244	.00007	-.00037	-.00007	.00030	.00273	.00004	.00027	.00051	.00100

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00120	.12840	.00184	-.00447	.00008	.00011	.09465	.00014	-.00029	.00157	.00703	.00190
Stddev	.00173	.01784	.00010	.00435	.00012	.00028	.00089	.00100	.00074	.00153	.00036	.00184
%RSD	143.58	13.890	5.6321	97.294	141.77	256.24	.94080	706.10	254.60	97.212	5.1542	96.967

#1	.00243	.14101	.00192	-.00139	.00000	.00031	.09402	.00085	.00023	.00049	.00677	.00060
#2	-.00002	.11579	.00177	-.00754	.00017	-.00009	.09528	-.00057	-.00081	.00265	.00728	.00320

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F.00829	.01295	.02772	-.00092	.00006	.00209	-.00003	.00007	-.04055	-.00032	.00060	.00055
Stddev	.00146	.02166	.04634	.00032	.00006	.00183	.00027	.00065	.04421	.00011	.00010	.00258
%RSD	17.640	167.19	167.19	35.333	109.10	87.468	823.70	877.04	109.02	33.478	17.192	466.15

#1	.00725	.02827	.06049	-.00069	.00010	.00080	.00016	-.00039	-.07181	-.00024	.00068	.00238
#2	.00932	-.00236	-.00505	-.00115	.00001	.00339	-.00022	.00053	-.00929	-.00039	.00053	-.00127

Check ?	Chk Fail	Chk Pass										
High Limit	.00500											
Low Limit	-.00500											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3291.4	62761.	6478.9
Stddev	3.1	63.	5.7
%RSD	.09362	.10070	.08804

#1	3289.2	62716.	6482.9
#2	3293.6	62805.	6474.8

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00999	.10043	.01307	.09487	.00937	.00092	.10350	.21110	.00484	.01042	.01035	.01434
Stddev	.00030	.00086	.00003	.00066	.00037	.00001	.00104	.01436	.00000	.00002	.00008	.00075
%RSD	3.0434	.85881	.20546	.70016	3.9293	.83726	1.0080	6.8009	.05303	.23787	.80401	5.1990

#1	.00977	.09982	.01305	.09440	.00911	.00091	.10276	.20094	.00484	.01040	.01029	.01382
#2	.01020	.10104	.01309	.09534	.00963	.00092	.10423	.22125	.00484	.01044	.01041	.01487

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09802	3.1804	.01163	.20422	.01056	.01840	1.0871	.04043	2.7189	.00921	.00671	.01107
Stddev	.00048	.0870	.00225	.00439	.00015	.00017	.0324	.00062	.0165	.00059	.00102	.00234
%RSD	.48868	2.7343	19.313	2.1475	1.4535	.93557	2.9775	1.5347	.60697	6.3589	15.231	21.190

#1	.09835	3.1189	.01004	.20112	.01045	.01828	1.0643	.03999	2.7072	.00880	.00599	.01272
#2	.09768	3.2419	.01322	.20732	.01067	.01852	1.1100	.04087	2.7306	.00963	.00744	.00941

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01903	.46178	.98821	.09510	.00993	.01607	.00992	.01688	F .03118	.00979	.02184	.01504
Stddev	.00459	.02593	.05548	.00013	.00006	.00099	.00059	.00130	.01494	.00023	.00016	.00348
%RSD	24.112	5.6147	5.6147	.13263	.60071	6.1590	5.9854	7.7266	47.924	2.3897	.74035	23.105

#1	.01578	.44345	.94898	.09519	.00989	.01677	.00950	.01596	.02061	.00996	.02195	.01750
#2	.02227	.48011	1.0274	.09501	.00997	.01537	.01034	.01780	.04174	.00962	.02173	.01259

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass							
Value									.06000			
Range									-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3285.7	62855.	6496.3
Stddev	.4	20.	97.7
%RSD	.01084	.03163	1.5038

#1	3286.0	62841.	6565.4
#2	3285.5	62870.	6427.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0030	.00167	-0.00223	-0.00016	-0.00007	-0.00012	-0.00193	.01646	-0.00012
Stddev	.00023	.00027	.00025	.00032	.00037	.00005	.00330	.00075	.00000
%RSD	76.376	16.246	11.009	202.21	493.86	39.638	170.77	4.5551	1.7445

#1	-0.0014	.00186	-0.00240	-0.00039	-0.00034	-0.00015	-0.00426	.01699	-0.00012
#2	-0.00046	.00148	-0.00206	.00007	.00019	-0.00009	.00040	.01593	-0.00012

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00015	.00026	-0.00042	.00243	.13127	.00238	.00218	.00030	.00041
Stddev	.00057	.00005	.00007	.00197	.00600	.00061	.00043	.00003	.00023
%RSD	381.07	19.594	16.290	81.203	4.5697	25.448	19.606	11.555	55.581

#1	-0.00025	.00022	-0.00046	.00103	.13551	.00281	.00249	.00032	.00025
#2	.00055	.00029	-0.00037	.00382	.12703	.00195	.00188	.00027	.00058

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06812	-0.00006	.00006	.00217	.00799	-0.00064	W .00910	.00809	.01731
Stddev	.00865	.00027	.00280	.00041	.00244	.00058	.00463	.00164	.00351
%RSD	12.699	444.87	5033.3	19.057	30.560	89.857	50.865	20.294	20.294

#1	.06201	.00013	.00203	.00188	.00971	-0.00023	.00583	.00925	.01979
#2	.07424	-0.00025	-0.00192	.00246	.00626	-0.00105	.01238	.00693	.01482

Check ?	Chk Pass	Chk Warn	Chk Pass	None					
High Limit							.00750		
Low Limit							-0.00750		

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00020	.00013	.00082	-0.00012	.00324	-0.00974	.00008	.00229	.00249
Stddev	.00109	.00000	.00042	.00004	.00044	.00668	.00078	.00001	.00001
%RSD	548.22	1.0881	51.174	32.303	13.522	68.578	990.21	.64366	.59812

#1	-0.00057	.00013	.00112	-0.00015	.00293	-0.01446	-0.00047	.00228	.00248
#2	.00097	.00013	.00052	-0.00009	.00354	-0.00501	.00063	.00231	.00250

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3305.4	63514.	6564.0
Stddev	.7	25.	28.7
%RSD	.02177	.03967	.43709

#1	3305.9	63532.	6543.7
#2	3304.9	63497.	6584.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05057	1.8140	.92717	.96603	1.9499	.04711	1.9286	47.328	.09527
Stddev	.00007	.0094	.01500	.00351	.0169	.00019	.0122	.306	.00040
%RSD	.13888	.51981	1.6178	.36329	.86587	.39387	.63361	.64594	.41686

#1	.05052	1.8207	.93777	.96851	1.9380	.04698	1.9373	47.112	.09499
#2	.05062	1.8074	.91656	.96355	1.9618	.04724	1.9200	47.544	.09555

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47405	F.18416	.24055	.94359	49.176	.96604	48.313	.48640	.95055
Stddev	.00160	.00012	.00028	.00851	.361	.00814	.008	.00029	.00441
%RSD	.33647	.06339	.11599	.90137	.73342	.84222	.01608	.05920	.46377

#1	.47518	.18408	.24074	.93757	48.921	.96029	48.319	.48620	.95366
#2	.47293	.18425	.24035	.94960	49.431	.97180	48.308	.48660	.94743

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.772	.47148	9.6500	.48432	1.8567	.48584	1.8870	9.6435	20.637
Stddev	.652	.00210	.0246	.00185	.0017	.00082	.0078	.0169	.036
%RSD	1.2590	.44471	.25496	.38261	.09040	.16865	.41206	.17482	.17482

#1	51.311	.47296	9.6674	.48563	1.8579	.48642	1.8815	9.6316	20.612
#2	52.233	.47000	9.6326	.48301	1.8555	.48526	1.8925	9.6554	20.663

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8363	.94552	.95979	.96492	1.8606	2.0448	.49194	.47186	.50890
Stddev	.0008	.00799	.00462	.00039	.0096	.0016	.00046	.00220	.00514
%RSD	.04155	.84556	.48121	.04016	.51657	.08023	.09367	.46709	1.0103

#1	1.8357	.93986	.96306	.96519	1.8674	2.0436	.49161	.47030	.50527
#2	1.8368	.95117	.95652	.96464	1.8538	2.0459	.49227	.47342	.51254

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3202.7	60530.	6532.9
Stddev	18.7	22.	39.9
%RSD	.58406	.03710	.61085

#1	3189.4	60546.	6561.1
#2	3215.9	60514.	6504.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00063	.03739	.00324	.01993	.03835	-.00011	-.00363	35.863	.00004
Stddev	.00009	.00066	.00632	.00048	.00017	.00001	.00022	.147	.00013
%RSD	14.816	1.7648	195.08	2.4261	.43828	13.358	6.0071	.41005	346.56

#1	.00069	.03692	.00771	.02027	.03847	-.00012	-.00348	35.759	.00013
#2	.00056	.03786	-.00123	.01959	.03823	-.00010	-.00379	35.967	-.00006

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.00063	.00873	.00511	1.4885	.00987	11.121	.00028	.00000
Stddev	.00023	.00030	.00019	.00149	.0706	.00092	.003	.00003	.00006
%RSD	288.14	47.345	2.1477	29.071	4.7427	9.2905	.02864	10.275	1782.7

#1	-.00008	.00084	.00859	.00617	1.4385	.00922	11.123	.00026	-.00004
#2	.00025	.00042	.00886	.00406	1.5384	.01052	11.119	.00030	.00005

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.724	.00005	.00297	.00492	25.704	.00032	.00813	1.5881	3.3985
Stddev	.342	.00024	.00050	.00289	.357	.00156	.00278	.0323	.0692
%RSD	2.3202	460.72	16.758	58.685	1.3892	492.55	34.200	2.0373	2.0373

#1	14.483	-.00012	.00332	.00696	25.956	-.00078	.01010	1.5652	3.3496
#2	14.966	.00022	.00262	.00288	25.451	.00142	.00617	1.6110	3.4475

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00044	.31212	.00135	-.00029	-.00152	-.03766	-.00034	.00155	.00129
Stddev	.00023	.00165	.00098	.00029	.00046	.00628	.00016	.00002	.00146
%RSD	52.864	.52891	72.479	101.99	30.347	16.666	46.301	1.5981	113.56

#1	-.00061	.31096	.00204	-.00008	-.00184	-.03323	-.00023	.00157	.00232
#2	-.00028	.31329	.00066	-.00049	-.00119	-.04210	-.00045	.00154	.00025

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3269.1	62151.	6611.3
Stddev	12.0	370.	45.3
%RSD	.36559	.59514	.68527

#1	3277.6	61889.	6643.3
#2	3260.7	62412.	6579.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00038	.00769	.00089	.00426	.00743	-.00014	-.00239	7.2145	-.00016
Stddev	.00036	.00022	.00126	.00042	.00008	.00005	.00066	.0538	.00007
%RSD	95.028	2.9126	140.83	9.9167	1.1377	35.969	27.481	.74591	42.323

#1	.00012	.00753	.00000	.00456	.00749	-.00018	-.00193	7.1765	-.00021
#2	.00063	.00785	.00178	.00396	.00737	-.00010	-.00285	7.2526	-.00012

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00013	.00032	.00208	.00598	.43317	.00224	2.2683	.00023	.00024
Stddev	.00005	.00017	.00037	.00050	.02624	.00079	.0238	.00005	.00011
%RSD	38.435	54.133	17.580	8.3702	6.0566	35.441	1.0480	23.183	44.744

#1	.00017	.00045	.00234	.00563	.41462	.00168	2.2851	.00019	.00032
#2	.00010	.00020	.00182	.00634	.45172	.00280	2.2515	.00027	.00016

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.8974	.00007	.00156	.00281	4.9604	-.00090	.00242	.33396	.71466
Stddev	.0110	.00042	.00015	.00145	.1417	.00415	.00670	.01424	.03046
%RSD	.37938	586.10	9.8273	51.481	2.8564	462.77	276.33	4.2627	4.2627

#1	2.8896	-.00023	.00145	.00383	5.0606	-.00383	-.00231	.34402	.73621
#2	2.9052	.00037	.00167	.00179	4.8603	.00204	.00716	.32389	.69312

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00333	.06511	.00122	-.00049	.00214	-.02280	-.00049	.00109	.00070
Stddev	.00041	.00016	.00086	.00030	.00126	.01719	.00057	.00011	.00106
%RSD	12.318	.24097	70.106	60.012	58.815	75.388	117.18	10.037	153.12

#1	.00362	.06500	.00183	-.00070	.00125	-.01065	-.00089	.00117	.00145
#2	.00304	.06522	.00062	-.00028	.00303	-.03496	-.00008	.00102	-.00006

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3310.3	62762.	6576.6
Stddev	10.6	276.	46.8
%RSD	.32071	.44030	.71209

#1	3302.8	62567.	6609.7
#2	3317.8	62958.	6543.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05294	1.8814	.97128	1.0145	2.0825	.04843	F 1.9979	85.351	.09925
Stddev	.00014	.0005	.00033	.0002	.0139	.00069	.0104	.634	.00043
%RSD	.26527	.02531	.03402	.02178	.66906	1.4321	.51879	.74295	.43613

#1	.05303	1.8817	.97104	1.0143	2.0727	.04794	2.0053	84.902	.09955
#2	.05284	1.8811	.97151	1.0146	2.0924	.04892	1.9906	85.799	.09894

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48892	W .18893	.26103	.96942	52.656	1.0203	61.243	.50526	.98195
Stddev	.00080	.00002	.00061	.00184	.484	.0100	.020	.00018	.00074
%RSD	.16420	.01050	.23205	.18956	.91970	.97756	.03244	.03536	.07535

#1	.48835	.18892	.26145	.96812	52.313	1.0132	61.257	.50514	.98247
#2	.48949	.18895	.26060	.97071	52.998	1.0273	61.229	.50539	.98142

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	67.936	.48618	W 10.136	.49976	27.632	.50978	1.9742	11.438	24.476
Stddev	.482	.00150	.009	.00194	.042	.00043	.0093	.000	.000
%RSD	.70930	.30766	.08470	.38856	.15159	.08412	.47215	.00057	.00057

#1	68.277	.48724	10.142	.50113	27.661	.50948	1.9808	11.438	24.476
#2	67.596	.48513	10.130	.49838	27.602	.51008	1.9676	11.438	24.476

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9062	1.3013	1.0060	1.0029	1.9143	2.1161	.51437	.48577	.52264
Stddev	.0041	.0100	.0011	.0011	.0043	.0038	.00099	.00179	.00047
%RSD	.21495	.76640	.11167	.11223	.22307	.18119	.19167	.36849	.09030

#1	1.9033	1.2943	1.0068	1.0037	1.9113	2.1134	.51367	.48703	.52231
#2	1.9091	1.3084	1.0052	1.0021	1.9173	2.1189	.51507	.48450	.52297

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3190.2	60266.	6580.3
Stddev	2.7	47.	38.6
%RSD	.08313	.07722	.58695

#1	3192.1	60299.	6607.6
#2	3188.3	60234.	6552.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05162	1.8556	.95591	1.0020	2.0400	.04731	F 1.9663	83.172	.09782
Stddev	.00004	.0104	.00949	.0045	.0208	.00026	.0079	.833	.00081
%RSD	.07902	.56208	.99259	.44823	1.0210	.54594	.40180	1.0010	.82671

#1	.05165	1.8630	.96262	1.0052	2.0252	.04713	1.9719	82.584	.09839
#2	.05159	1.8483	.94920	.99883	2.0547	.04750	1.9607	83.761	.09725

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48028	W .18609	.25616	.95944	51.713	1.0033	60.162	.49657	.96375
Stddev	.00085	.00076	.00151	.00442	.520	.0126	.008	.00046	.00256
%RSD	.17772	.40762	.59063	.46106	1.0047	1.2551	.01251	.09245	.26586

#1	.48088	.18662	.25723	.95632	51.346	.99436	60.157	.49689	.96556
#2	.47968	.18555	.25509	.96257	52.081	1.0122	60.167	.49624	.96194

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	66.461	.47704	W 9.9544	.49317	27.018	.49689	1.9241	11.328	24.243
Stddev	.941	.00110	.0318	.00016	.147	.00348	.0003	.143	.307
%RSD	1.4152	.23132	.31900	.03178	.54451	.70093	.01413	1.2659	1.2659

#1	65.796	.47782	9.9769	.49306	26.914	.49935	1.9239	11.227	24.026
#2	67.126	.47626	9.9320	.49328	27.122	.49443	1.9243	11.430	24.460

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8504	1.2718	.98638	.98599	1.8605	2.0761	.50607	.47825	.51335
Stddev	.0044	.0126	.00126	.00422	.0026	.0065	.00203	.00051	.00950
%RSD	.23614	.99098	.12746	.42753	.13686	.31312	.40083	.10595	1.8498

#1	1.8535	1.2629	.98550	.98898	1.8623	2.0715	.50751	.47789	.50663
#2	1.8473	1.2807	.98727	.98301	1.8587	2.0807	.50464	.47861	.52006

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3191.8	60050.	6606.4
Stddev	11.8	50.	51.1
%RSD	.37027	.08298	.77368

#1	3183.4	60085.	6642.5
#2	3200.1	60015.	6570.2

Comment: bottle check

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00080	-.00492	.00397	.24605	.11327	-.00016	.00150	39.878	-.00013
Stddev	.00033	.00136	.00080	.00219	.00207	.00019	.00101	.826	.00015
%RSD	40.793	27.668	20.038	.89111	1.8254	120.17	67.547	2.0701	115.56

#1	.00057	-.00395	.00453	.24450	.11181	-.00002	.00078	39.294	-.00024
#2	.00103	-.00588	.00341	.24761	.11473	-.00030	.00221	40.462	-.00002

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00195	.00097	-.00008	24.103	7.8246	.00237	16.083	4.6949	-.00165
Stddev	.00010	.00021	.00081	.527	.1164	.00165	.002	.0153	.00006
%RSD	5.1689	21.158	1006.5	2.1884	1.4872	69.562	.01137	.32657	3.5420

#1	.00188	.00112	.00049	23.730	7.7423	.00353	16.084	4.7057	-.00161
#2	.00202	.00083	-.00065	24.476	7.9069	.00120	16.082	4.6841	-.00169

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	21.840	.00137	.02255	.00403	3.6516	-.00449	.01097	10.045	21.496
Stddev	.666	.00019	.00024	.00136	.0370	.00065	.00260	.145	.309
%RSD	3.0504	13.643	1.0465	33.677	1.0123	14.462	23.665	1.4388	1.4388

#1	21.369	.00150	.02238	.00499	3.6255	-.00495	.00914	9.9428	21.278
#2	22.311	.00124	.02271	.00307	3.6778	-.00403	.01281	10.147	21.715

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00077	.41988	.00330	-.00017	-.00340	-.04558	.00096	.00117	.00172
Stddev	.00068	.00932	.00264	.00007	.00390	.01575	.00121	.00045	.00025
%RSD	88.160	2.2195	79.924	43.607	114.55	34.554	126.59	38.651	14.495

#1	.00029	.41329	.00516	-.00012	-.00065	-.05672	.00181	.00085	.00154
#2	.00126	.42647	.00143	-.00022	-.00616	-.03444	.00010	.00149	.00190

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3434.8	64175.	6856.0
Stddev	10.2	351.	103.8
%RSD	.29727	.54704	1.5140

#1	3442.0	63926.	6929.4
#2	3427.5	64423.	6782.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00025	-.00044	.00346	.05691	.01090	-.00004	-.00229	31.173	-.00013
Stddev	.00038	.00022	.00182	.00055	.00017	.00001	.00134	.418	.00013
%RSD	151.14	50.965	52.569	.97004	1.5542	33.302	58.551	1.3408	97.356

#1	-.00002	-.00028	.00217	.05730	.01078	-.00003	-.00134	30.878	-.00004
#2	.00052	-.00059	.00475	.05652	.01102	-.00005	-.00324	31.469	-.00022

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00046	.00081	.00109	.00257	4.0216	.00249	18.903	.07000	-.00136
Stddev	.00009	.00026	.00030	.00177	.0109	.00002	.022	.00001	.00012
%RSD	18.917	31.926	27.478	69.036	.27097	.80046	.11664	.00962	8.6800

#1	-.00040	.00063	.00130	.00132	4.0139	.00251	18.887	.07000	-.00128
#2	-.00052	.00100	.00088	.00382	4.0293	.00248	18.918	.06999	-.00144

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.500	.00092	.02918	.00295	3.5315	-.00150	.00713	16.801	35.954
Stddev	.135	.00002	.00038	.00126	.0072	.00099	.00677	.016	.033
%RSD	.93128	2.3993	1.3054	42.753	.20362	65.832	94.914	.09296	.09296

#1	14.595	.00091	.02891	.00385	3.5366	-.00080	.00234	16.790	35.930
#2	14.404	.00094	.02945	.00206	3.5264	-.00219	.01191	16.812	35.978

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	.22452	-.00007	-.00033	-.00239	-.01270	.00152	.00387	.00248
Stddev	.00024	.00288	.00019	.00022	.00220	.02819	.00009	.00122	.00175
%RSD	236.76	1.2839	284.47	65.478	91.827	221.94	6.2208	31.551	70.867

#1	.00007	.22248	-.00020	-.00018	-.00084	.00723	.00145	.00300	.00123
#2	-.00027	.22656	.00007	-.00048	-.00394	-.03264	.00159	.00473	.00372

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3437.3	64299.	6822.1
Stddev	9.6	114.	74.1
%RSD	.27848	.17711	1.0867

#1	3444.0	64380.	6874.5
#2	3430.5	64219.	6769.7

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00282	47.374	.00267	.00045	-.00020	.00008	.95515	.03770	-.00018	-.00115	.00077
Stddev	.00017	.648	.00107	.00005	.00026	.00005	.00457	.00042	.00004	.00046	.00013
%RSD	6.1852	1.3683	40.223	10.225	132.64	63.670	.47872	1.1067	23.453	40.310	16.641

#1	.00294	46.916	.00191	.00048	-.00038	.00005	.95838	.03799	-.00021	-.00148	.00068
#2	.00270	47.833	.00343	.00041	-.00001	.00012	.95191	.03740	-.00015	-.00082	.00086

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00135	47.024	.16254	.00101	-.01980	-.00137	-.00100	237.96	.00131	.00629	.00257
Stddev	.00011	.393	.02821	.00036	.00608	.00004	.00012	4.14	.00020	.00146	.00002
%RSD	8.0229	.83675	17.359	35.875	30.701	2.9143	11.829	1.7389	15.256	23.223	.91223

#1	.00143	46.746	.14259	.00127	-.01550	-.00140	-.00109	235.03	.00117	.00526	.00258
#2	.00127	47.302	.18249	.00075	-.02410	-.00135	-.00092	240.88	.00145	.00732	.00255

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.5813	-.00607	.00398	-.01041	-.02227	-.00184	.00034	4.7869	-.01750	.00292	10.027
Stddev	.0573	.00178	.00154	.00009	.00020	.00019	.00006	.0100	.00100	.00009	.109
%RSD	1.2518	29.291	38.748	.91197	.91197	10.348	17.321	.20811	5.7152	3.1132	1.0904

#1	4.6219	-.00481	.00507	-.01034	-.02213	-.00198	.00030	4.7940	-.01679	.00299	10.105
#2	4.5408	-.00732	.00289	-.01047	-.02241	-.00171	.00038	4.7799	-.01821	.00286	9.9501

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	5.0000										
Range	-5.0000%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00293	.00145	.08348
Stddev	.00040	.00094	.00133
%RSD	13.594	64.743	1.5918

#1	.00265	.00079	.08254
#2	.00322	.00212	.08442

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3272.5	61266.	6671.2
Stddev	2.7	359.	34.2
%RSD	.08392	.58562	.51275

#1	3270.5	61012.	6695.4
#2	3274.4	61520.	6647.0

Sample Name: CCV-3305006 Acquired: 6/5/2015 15:33:30 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50365	.48133	.93264	.48059	.48766	.46528	-.00239	4.8640	.47557	.49477	.48394	.48069	2.3599
Stddev	.00035	.00046	.00079	.00382	.00807	.00750	.00000	.1023	.00053	.00468	.00747	.00065	.0464
%RSD	.07009	.09486	.08522	.79456	1.6557	1.6127	.14413	2.1039	.11182	.94592	1.5438	.13520	1.9657

#1	.50390	.48165	.93320	.47789	.48195	.45997	-.00239	4.7917	.47519	.49146	.47866	.48023	2.3271
#2	.50340	.48100	.93208	.48329	.49337	.47058	-.00239	4.9364	.47595	.49808	.48922	.48115	2.3927

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.694	.96637	19.740	.49263	.46016	4.9135	.49469	.95179	.98305	.00852	.95672	.94405	4.7112
Stddev	.880	.01692	.082	.00082	.00560	.0819	.00509	.01448	.01798	.00114	.01823	.01542	.1050
%RSD	1.8065	1.7513	.41563	.16670	1.2168	1.6658	1.0291	1.5217	1.8289	13.416	1.9057	1.6330	2.2276

#1	48.072	.95440	19.798	.49321	.45620	4.8556	.49109	.94155	.97033	.00771	.94383	.93314	4.6370
#2	49.316	.97834	19.682	.49205	.46412	4.9713	.49829	.96204	.99576	.00933	.96962	.95495	4.7854

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.082	.92442	.47050	-.00192	.48532	.96242	-.01222	.49027	.48238	.48119
Stddev	.225	.01912	.00818	.00193	.00185	.01913	.02508	.00064	.00192	.00743
%RSD	2.2276	2.0679	1.7394	100.49	.38171	1.9875	205.26	.13045	.39706	1.5438

#1	9.9231	.91090	.46472	-.00328	.48663	.94889	.00552	.49072	.48103	.47594
#2	10.241	.93794	.47629	-.00056	.48401	.97594	-.02996	.48982	.48374	.48644

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3320.9	62340.	6649.6
Stddev	6.5	55.	93.1
%RSD	.19423	.08882	1.3999

#1	3316.3	62301.	6715.4
#2	3325.4	62379.	6583.8

Sample Name: CCB Acquired: 6/5/2015 15:35:58 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00026	-.00062	.00120	.00064	-.00041	-.00004	-.00172	.00284	-.00020	-.00019	.00015	.00021
Stddev	.00067	.00004	.00153	.00084	.00000	.00002	.00237	.00260	.00000	.00008	.00003	.00048
%RSD	256.47	6.0565	128.14	132.04	.96112	63.067	137.66	91.375	1.4459	42.152	19.338	226.90

#1	.00074	-.00064	.00228	.00004	-.00041	-.00002	-.00340	.00468	-.00020	-.00013	.00013	-.00013
#2	-.00021	-.00059	.00011	.00124	-.00041	-.00006	-.00005	.00101	-.00020	-.00025	.00017	.00055

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00126	.14409	.00253	.00083	.00000	.00010	.06573	-.00055	-.00008	.00014	.00466	-.00064
Stddev	.00095	.01467	.00019	.00603	.00002	.00022	.00682	.00066	.00153	.00362	.00573	.00129
%RSD	75.840	10.179	7.4201	726.05	364.18	220.50	10.370	119.80	1944.7	2635.1	122.93	202.17

#1	-.00193	.15446	.00267	.00510	.00002	-.00006	.06091	-.00008	-.00116	-.00242	.00061	-.00155
#2	-.00058	.13372	.00240	-.00344	-.00001	.00026	.07054	-.00102	.00101	.00270	.00872	.00027

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F.00554	-.00808	-.01729	-.00055	.00001	.00241	-.00033	.00294	-.02511	-.00004	.00080	.00162
Stddev	.00097	.02600	.05564	.00034	.00003	.00017	.00004	.00175	.01035	.00026	.00016	.00060
%RSD	17.536	321.85	321.85	62.663	400.85	7.0492	10.999	59.507	41.221	658.95	20.518	37.218

#1	.00485	.01031	.02206	-.00079	-.00002	.00253	-.00035	.00418	-.01779	-.00023	.00092	.00204
#2	.00623	-.02646	-.05663	-.00030	.00003	.00229	-.00030	.00170	-.03243	.00015	.00068	.00119

Check ?	Chk Fail	Chk Pass										
High Limit	.00500											
Low Limit	-.00500											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3338.8	63660.	6638.2
Stddev	4.7	131.	73.9
%RSD	.14066	.20641	1.1127

#1	3335.5	63567.	6690.5
#2	3342.1	63753.	6586.0

Sample Name: CCVL3312280 Acquired: 6/5/2015 15:38:20 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01014	.09885	.01261	.09451	.00980	.00078	.10111	.20231	.00490	.01019	.01025	.01466
Stddev	.00082	.00021	.00787	.00015	.00033	.00008	.00108	.00002	.00006	.00006	.00008	.00078
%RSD	8.0618	.20968	62.404	.16224	3.3654	10.089	1.0677	.00779	1.1908	.54406	.74316	5.2990

#1	.00956	.09899	.00704	.09440	.01003	.00083	.10034	.20230	.00494	.01016	.01020	.01411
#2	.01071	.09870	.01817	.09462	.00957	.00072	.10187	.20232	.00486	.01023	.01031	.01521

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09334	3.1060	.01273	.20355	.01041	.01818	1.0536	.04023	2.6936	.01005	.00827	.00817
Stddev	.00122	.0162	.00058	.00436	.00009	.00026	.0086	.00013	.0234	.00024	.00328	.00034
%RSD	1.3078	.52178	4.5695	2.1420	.89399	1.4386	.81529	.32820	.86883	2.4257	39.665	4.1595

#1	.09248	3.1175	.01232	.20663	.01034	.01799	1.0476	.04013	2.6770	.01023	.01058	.00841
#2	.09420	3.0946	.01314	.20047	.01047	.01836	1.0597	.04032	2.7101	.00988	.00595	.00793

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .02208	.45661	.97714	.09397	.00967	.01591	.00949	.01881	.05586	.00988	.02218	.01512
Stddev	.00180	.01550	.03317	.00076	.00000	.00090	.00016	.00116	.00494	.00001	.00025	.00122
%RSD	8.1586	3.3942	3.3942	.81103	.02234	5.6405	1.6597	6.1739	8.8378	.11500	1.1234	8.0846

#1	.02336	.46757	1.0006	.09451	.00967	.01654	.00961	.01799	.05237	.00987	.02200	.01598
#2	.02081	.44565	.95369	.09343	.00966	.01528	.00938	.01963	.05935	.00988	.02235	.01425

Check ?	Chk Fail	Chk Pass										
Value	.01500											
Range	30.000%											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3357.1	63759.	6669.2
Stddev	.2	430.	31.1
%RSD	.00702	.67514	.46582

#1	3356.9	64064.	6647.2
#2	3357.3	63455.	6691.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0005	.00215	-0.00082	-0.00035	-0.00029	-0.00006	.00106	.00129	.00002
Stddev	.00036	.00015	.00173	.00027	.00000	.00008	.00263	.00557	.00001
%RSD	733.03	7.0321	210.58	78.353	.39361	147.58	249.14	432.73	42.753

#1	.00020	.00204	.00040	-.00054	-.00030	.00000	.00292	-.00265	.00001
#2	-.00030	.00225	-.00205	-.00015	-.00029	-.00011	-.00080	.00523	.00002

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00000	.00013	-0.00003	.00580	.13673	.00150	-0.00316	.00014	.00018
Stddev	.0001	.00010	.00036	.00120	.01455	.00254	.00229	.00006	.00006
%RSD	24493.	78.690	1039.3	20.779	10.644	168.50	72.476	42.374	32.834

#1	.00010	.00006	.00022	.00494	.12644	.00330	-.00477	.00009	.00022
#2	-.00010	.00021	-.00029	.00665	.14702	-.00029	-.00154	.00018	.00014

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04790	-0.00019	-0.00058	.00078	.00597	.00044	.00560	-0.00839	-0.01796
Stddev	.00540	.00001	.00013	.00138	.00034	.00126	.00131	.02432	.05205
%RSD	11.267	7.2898	21.572	177.45	5.6404	287.23	23.400	289.79	289.79

#1	.04408	-.00020	-.00049	.00175	.00574	.00133	.00653	-.02559	-.05476
#2	.05171	-.00018	-.00067	-.00020	.00621	-.00045	.00468	.00880	.01884

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00028	-0.00005	.00372	-0.00020	.00219	-0.02391	-0.00057	.00105	.00198
Stddev	.00024	.00012	.00058	.00000	.00079	.00429	.00032	.00017	.00100
%RSD	88.288	238.57	15.644	1.6250	36.163	17.924	56.268	16.543	50.521

#1	-.00045	.00003	.00413	-.00020	.00275	-.02694	-.00079	.00118	.00269
#2	-.00010	-.00013	.00331	-.00020	.00163	-.02088	-.00034	.00093	.00127

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3369.1	64474.	6710.0
Stddev	4.1	70.	3.4
%RSD	.12256	.10850	.05093

#1	3372.0	64524.	6712.4
#2	3366.2	64425.	6707.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05241	1.8816	.96666	1.0135	2.0692	.04890	2.0230	50.082	.10029
Stddev	.00039	.0072	.00106	.0025	.0056	.00015	.0037	.071	.00001
%RSD	.74659	.38147	.11004	.24906	.27304	.31487	.18468	.14177	.01368

#1	.05213	1.8867	.96741	1.0118	2.0652	.04901	2.0204	50.032	.10030
#2	.05268	1.8766	.96591	1.0153	2.0732	.04879	2.0257	50.133	.10028

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49679	F .19256	.25324	.98439	51.775	1.0172	51.020	.51100	.98632
Stddev	.00064	.00014	.00085	.00146	.177	.0036	.030	.00094	.00161
%RSD	.12950	.07190	.33455	.14875	.34105	.34957	.05920	.18426	.16282

#1	.49634	.19266	.25384	.98542	51.650	1.0147	51.041	.51167	.98519
#2	.49725	.19247	.25264	.98335	51.900	1.0197	50.998	.51034	.98746

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	54.481	.49412	10.143	.50719	1.9660	.51343	1.9867	10.055	21.519
Stddev	.107	.00036	.014	.00228	.0038	.00098	.0040	.017	.036
%RSD	.19603	.07302	.14067	.44930	.19412	.19043	.20199	.16681	.16681

#1	54.556	.49387	10.133	.50880	1.9633	.51412	1.9896	10.067	21.544
#2	54.405	.49438	10.153	.50558	1.9687	.51274	1.9839	10.044	21.493

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9134	.99399	1.0083	1.0136	1.9450	2.1297	.51741	.49364	.53472
Stddev	.0053	.00212	.0050	.0021	.0011	.0006	.00014	.00306	.00742
%RSD	.27945	.21327	.50122	.21117	.05425	.02595	.02634	.62020	1.3882

#1	1.9172	.99249	1.0118	1.0151	1.9443	2.1301	.51750	.49581	.53996
#2	1.9096	.99549	1.0047	1.0121	1.9458	2.1293	.51731	.49148	.52947

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3238.5	60794.	6582.4
Stddev	4.2	224.	8.3
%RSD	.12860	.36873	.12551

#1	3235.5	60635.	6588.2
#2	3241.4	60952.	6576.5

Sample Name: 280-69945-A-1-A Acquired: 6/5/2015 15:45:46 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280185 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00036	.00083	-.00222	.10297	.25074	-.00011	-.00173	28.437	.00000
Stddev	.00062	.00013	.00774	.00168	.00258	.00007	.00385	.254	.0003
%RSD	171.02	15.897	348.94	1.6287	1.0302	61.527	222.36	.89418	8457.6

#1	.00080	.00092	.00326	.10416	.24891	-.00015	-.00445	28.257	.00018
#2	-.00008	.00074	-.00770	.10179	.25256	-.00006	.00099	28.617	-.00018

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00052	.00058	.00095	.19135	2.7847	.02671	13.455	.26654	.00449
Stddev	.00025	.00017	.00071	.00386	.0505	.00018	.006	.00074	.00016
%RSD	48.575	29.695	74.562	2.0184	1.8129	.67769	.04334	.27915	3.5001

#1	-.00069	.00046	.00045	.18862	2.7490	.02684	13.459	.26706	.00460
#2	-.00034	.00070	.00145	.19408	2.8204	.02658	13.451	.26601	.00438

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	135.73	-.00004	.14323	.00373	12.937	-.00114	.00851	10.923	23.375
Stddev	1.09	.00010	.00178	.00061	.217	.00043	.00073	.229	.491
%RSD	.80573	296.31	1.2418	16.404	1.6796	38.192	8.5846	2.0997	2.0997

#1	134.96	.00004	.14449	.00416	13.090	-.00144	.00799	10.761	23.028
#2	136.50	-.00011	.14197	.00329	12.783	-.00083	.00903	11.085	23.722

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	.23671	-.00033	-.00062	.00037	-.02064	-.00106	.00080	.00111
Stddev	.00017	.00239	.00176	.00025	.00014	.02535	.00014	.00041	.00115
%RSD	1540.2	1.0113	535.71	40.624	39.056	122.84	13.218	51.681	103.92

#1	.00011	.23502	.00091	-.00080	.00027	-.03856	-.00116	.00051	.00192
#2	-.00013	.23841	-.00157	-.00044	.00047	-.00271	-.00096	.00110	.00029

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3266.0	61128.	6666.5
Stddev	2.7	86.	53.5
%RSD	.08216	.14121	.80263

#1	3267.9	61189.	6704.3
#2	3264.1	61067.	6628.7

Sample Name: 280-69945-A-1-A SD@5 Acquired: 6/5/2015 15:48:24 Type: Unk

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment: 280185 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00089	.00023	.00177	.02250	.05812	-.00001	-.00061	6.5707	-.00001
Stddev	.00017	.00042	.00090	.00053	.00074	.00007	.00134	.0069	.00004
%RSD	18.660	184.29	50.840	2.3553	1.2666	604.60	220.89	.10440	490.22

#1	.00101	.00052	.00114	.02287	.05760	.00004	-.00156	6.5658	.00002
#2	.00078	-.00007	.00241	.02212	.05864	-.00006	.00034	6.5755	-.00003

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.00026	.00087	.04958	.75545	.00824	3.1929	.06274	.00074
Stddev	.00023	.00018	.00090	.00019	.09141	.00155	.0273	.00031	.00016
%RSD	406.30	68.287	103.65	.38567	12.100	18.826	.85649	.48807	21.838

#1	-.00010	.00013	.00151	.04945	.69081	.00933	3.1735	.06252	.00063
#2	.00022	.00038	.00023	.04972	.82009	.00714	3.2122	.06295	.00086

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	32.514	.00024	.02793	.00146	2.7650	.00141	.00724	2.4503	5.2437
Stddev	.435	.00013	.00015	.00007	.0327	.00012	.00332	.0489	.1047
%RSD	1.3386	55.207	.53355	5.1222	1.1816	8.3073	45.817	1.9960	1.9960

#1	32.206	.00033	.02783	.00140	2.7881	.00149	.00958	2.4158	5.1697
#2	32.822	.00014	.02804	.00151	2.7419	.00132	.00489	2.4849	5.3178

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00212	.05558	.00036	-.00034	.00210	-.00984	-.00088	.00118	.00118
Stddev	.00010	.00122	.00059	.00008	.00136	.03371	.00012	.00042	.00009
%RSD	4.6302	2.1971	162.86	23.188	64.760	342.61	14.028	35.845	7.2184

#1	.00219	.05472	-.00006	-.00028	.00306	-.03367	-.00079	.00148	.00124
#2	.00206	.05645	.00078	-.00039	.00114	.01400	-.00096	.00088	.00112

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3334.0	62613.	6723.4
Stddev	11.8	396.	68.7
%RSD	.35249	.63212	1.0220

#1	3342.3	62893.	6771.9
#2	3325.6	62333.	6674.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05235	1.7921	.95353	1.0764	2.2410	.04785	F 1.9281	76.405	.09728
Stddev	.00076	.0047	.00571	.0002	.0216	.00029	.0006	.954	.00032
%RSD	1.4604	.25998	.59840	.01859	.96373	.61309	.02939	1.2491	.32857

#1	.05181	1.7954	.95756	1.0763	2.2257	.04764	1.9277	75.730	.09705
#2	.05289	1.7888	.94949	1.0766	2.2562	.04806	1.9285	77.079	.09751

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47708	W .18396	.24457	1.1413	52.968	1.0078	62.286	.75575	.95941
Stddev	.00003	.00003	.00174	.0120	.586	.0085	.092	.00064	.00334
%RSD	.00602	.01706	.71274	1.0497	1.1061	.84323	.14814	.08505	.34848

#1	.47710	.18398	.24580	1.1328	52.553	1.0018	62.351	.75621	.96178
#2	.47706	.18394	.24334	1.1498	53.382	1.0138	62.220	.75530	.95705

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	185.89	.47287	W 10.093	.48269	14.766	.49258	1.9172	20.475	43.816
Stddev	2.15	.00265	.001	.00067	.024	.00457	.0119	.329	.705
%RSD	1.1579	.56006	.01214	.13923	.15985	.92816	.62137	1.6085	1.6085

#1	184.37	.47474	10.094	.48316	14.750	.48935	1.9087	20.242	43.318
#2	187.41	.47099	10.092	.48221	14.783	.49582	1.9256	20.708	44.315

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8299	1.1932	.98566	.98715	1.7818	2.0150	.50580	.48034	.50940
Stddev	.0019	.0114	.00419	.00149	.0084	.0030	.00011	.00338	.01084
%RSD	.10481	.95714	.42476	.15112	.47238	.14720	.02147	.70320	2.1285

#1	1.8285	1.1852	.98862	.98820	1.7759	2.0171	.50587	.47795	.50173
#2	1.8312	1.2013	.98270	.98609	1.7878	2.0129	.50572	.48273	.51707

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3192.7	59780.	6633.6
Stddev	13.8	124.	68.6
%RSD	.43105	.20684	1.0340

#1	3183.0	59867.	6682.1
#2	3202.5	59692.	6585.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05244	1.7973	.95321	1.0803	2.2706	.04743	F 1.9312	78.108	.09707
Stddev	.00080	.0050	.00196	.0049	.0376	.00079	.0086	1.102	.00007
%RSD	1.5240	.27837	.20607	.44874	1.6557	1.6698	.44265	1.4107	.07397

#1	.05300	1.8009	.95183	1.0837	2.2440	.04687	1.9372	77.329	.09712
#2	.05187	1.7938	.95460	1.0768	2.2972	.04799	1.9251	78.888	.09702

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47594	W .18485	.24682	1.1499	53.581	1.0165	63.302	.77661	.96451
Stddev	.00291	.00106	.00075	.0091	.884	.0148	.042	.00126	.00659
%RSD	.61041	.57174	.30510	.79115	1.6506	1.4523	.06619	.16181	.68357

#1	.47800	.18560	.24629	1.1435	52.956	1.0060	63.331	.77750	.96917
#2	.47389	.18410	.24736	1.1563	54.206	1.0269	63.272	.77572	.95985

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	193.93	.47395	W 10.084	.48172	15.395	.49652	1.9187	21.132	45.223
Stddev	2.16	.00254	.056	.00395	.105	.00365	.0110	.129	.275
%RSD	1.1140	.53547	.55912	.81998	.68499	.73468	.57416	.60816	.60816

#1	192.40	.47574	10.124	.48452	15.470	.49910	1.9265	21.041	45.029
#2	195.46	.47215	10.044	.47893	15.321	.49394	1.9109	21.223	45.418

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8326	1.2163	.99006	.99638	1.7836	2.0761	.51185	.48486	.51369
Stddev	.0168	.0162	.00073	.00165	.0180	.0068	.00077	.00365	.00735
%RSD	.91730	1.3341	.07380	.16514	1.0061	.32779	.15049	.75210	1.4313

#1	1.8445	1.2048	.98955	.99754	1.7963	2.0809	.51240	.48744	.50849
#2	1.8208	1.2278	.99058	.99521	1.7709	2.0712	.51131	.48228	.51888

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3189.3	59460.	6653.3
Stddev	4.1	13.	28.5
%RSD	.12836	.02265	.42900

#1	3186.4	59451.	6673.5
#2	3192.2	59470.	6633.1

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00253	48.407	.00179	.00201	-.00028	.00010	.95555	.03342	-.00024	-.00132	.00086
Stddev	.00031	.391	.00027	.00043	.00000	.00014	.00779	.00539	.00009	.00022	.00015
%RSD	12.389	.80707	15.184	21.455	.41965	139.52	.81569	16.128	36.738	16.467	17.483

#1	.00275	48.130	.00160	.00231	-.00028	.00000	.95004	.03723	-.00018	-.00147	.00097
#2	.00231	48.683	.00199	.00170	-.00028	.00019	.96106	.02961	-.00030	-.00116	.00075

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00052	47.748	.27497	.00244	-.02041	-.00139	.00023	242.12	.00082	.00300	.00207
Stddev	.00072	.693	.03228	.00130	.00179	.00012	.00045	1.78	.00003	.00238	.00038
%RSD	137.55	1.4503	11.741	53.193	8.7909	8.5094	196.96	.73522	4.1879	79.364	18.431

#1	.00001	47.258	.29780	.00152	-.02168	-.00148	.00055	240.86	.00084	.00468	.00180
#2	.00103	48.237	.25214	.00336	-.01914	-.00131	-.00009	243.38	.00079	.00132	.00234

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.5799	-.00654	.00546	-.00217	-.00464	-.00229	.00032	4.8376	-.01706	.00506	10.315
Stddev	.0323	.00233	.00366	.00852	.01823	.00027	.00007	.0126	.00025	.00049	.016
%RSD	.70520	35.712	67.118	392.74	392.74	11.673	21.056	.26031	1.4662	9.6329	.15521

#1	4.5570	-.00489	.00287	-.00819	-.01753	-.00210	.00037	4.8465	-.01724	.00540	10.327
#2	4.6027	-.00819	.00805	.00385	.00825	-.00247	.00028	4.8287	-.01689	.00471	10.304

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	5.0000										
Range	-5.0000%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00330	.00111	.08595
Stddev	.00025	.00012	.00602
%RSD	7.5358	10.584	7.0027

#1	.00348	.00119	.08169
#2	.00312	.00102	.09020

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3288.8	61072.	6625.9
Stddev	.9	136.	8.7
%RSD	.02617	.22296	.13068

#1	3289.4	61169.	6632.0
#2	3288.2	60976.	6619.8

Sample Name: CCV-3305006 Acquired: 6/5/2015 15:58:30 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50135	.47819	.93051	.48059	.49385	.47093	-.00228	4.9142	.47518	.49189	.48676	.48477	2.3724
Stddev	.00207	.00369	.00151	.00589	.00009	.00110	.00040	.0159	.00057	.00100	.00143	.00165	.0082
%RSD	.41327	.77164	.16233	1.2250	.01911	.23313	17.330	.32267	.12058	.20389	.29406	.33966	.34582

#1	.49988	.47558	.92944	.47642	.49378	.47170	-.00256	4.9254	.47558	.49118	.48777	.48360	2.3782
#2	.50281	.48080	.93158	.48475	.49392	.47015	-.00200	4.9030	.47477	.49260	.48575	.48593	2.3666

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.208	.97794	19.573	.49019	.45957	5.0035	.49111	.94686	.97905	.00760	.94908	.93269	4.7164
Stddev	.094	.00281	.072	.00106	.00001	.0129	.00032	.00771	.00112	.00791	.00210	.00193	.0120
%RSD	.19116	.28734	.37027	.21640	.00285	.25796	.06514	.81381	.11409	104.03	.22133	.20730	.25380

#1	49.275	.97992	19.522	.48944	.45958	5.0126	.49089	.94141	.97826	.01319	.94759	.93132	4.7248
#2	49.142	.97595	19.624	.49094	.45957	4.9944	.49134	.95231	.97984	.00201	.95056	.93405	4.7079

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass								
Value													
Range													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.093	.92198	.47672	-.00101	.48388	.96057	-.00862	.49392	.48119	.48571
Stddev	.026	.00210	.00121	.00005	.00008	.00112	.00660	.00606	.00036	.00370
%RSD	.25380	.22776	.25437	5.2013	.01566	.11694	76.635	1.2261	.07506	.76136

#1	10.111	.92347	.47758	-.00104	.48393	.95978	-.00395	.48964	.48144	.48833
#2	10.075	.92050	.47587	-.00097	.48382	.96137	-.01328	.49820	.48093	.48310

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3344.9	63307.	6718.5
Stddev	1.9	16.	13.8
%RSD	.05800	.02504	.20501

#1	3346.3	63296.	6728.2
#2	3343.6	63318.	6708.7

Sample Name: CCB Acquired: 6/5/2015 16:00:59 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0002	-0.00025	.00184	.00091	-0.00012	-0.00013	-0.00232	.00295	-0.00037	.00007	.00019	-0.00011
Stddev	.00073	.00007	.00384	.00003	.00015	.00004	.00105	.00028	.00021	.00026	.00018	.00064
%RSD	4118.8	27.234	208.13	2.9651	124.76	33.083	45.024	9.4194	55.567	381.69	93.493	590.53

#1	-0.00053	-0.00020	.00456	.00089	-0.00001	-0.00016	-.00158	.00315	-0.00052	.00025	.00031	.00035
#2	.00050	-0.00030	-.00087	.00093	-0.00023	-0.00010	-.00306	.00276	-0.00023	-.00012	.00006	-.00056

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00131	.12905	.00176	.00358	.00006	.00011	.08084	.00005	-0.00066	-0.00108	.00012	.00126
Stddev	.00008	.04136	.00194	.00401	.00005	.00014	.00294	.00035	.00306	.00074	.00613	.00149
%RSD	6.3481	32.048	110.20	112.30	89.879	122.83	3.6326	719.70	461.03	68.144	4945.4	117.59

#1	-0.00125	.09981	.00313	.00641	.00002	.00001	.08292	-0.00020	-0.00283	-0.00160	.00446	.00231
#2	-0.00137	.15830	.00039	.00074	.00009	.00021	.07877	.00029	.00150	-0.00056	-.00421	.00021

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F.00781	.00940	.02013	.00021	-0.00001	.00242	.00008	.00025	-0.03311	-0.00027	.00054	.00275
Stddev	.00519	.01182	.02529	.00050	.00001	.00131	.00025	.00223	.01690	.00079	.00058	.00004
%RSD	66.387	125.65	125.65	234.34	106.16	54.255	305.02	881.33	51.045	289.27	106.39	1.3669

#1	.00415	.01776	.03801	-.00014	.00000	.00149	.00026	-.00133	-.02116	-.00083	.00013	.00272
#2	.01148	.00105	.00224	.00057	-.00002	.00334	-.00009	.00183	-.04506	.00029	.00095	.00278

Check ?	Chk Fail	Chk Pass										
High Limit	.00500											
Low Limit	-.00500											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3319.7	63612.	6706.3
Stddev	12.5	119.	94.5
%RSD	.37527	.18739	1.4087

#1	3310.9	63696.	6773.1
#2	3328.5	63528.	6639.5

Sample Name: CCVL3312280 Acquired: 6/5/2015 16:03:21 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01074	.09766	.01204	.09325	.00982	.00084	.10037	.20743	.00455	.01020	.01014	.01435
Stddev	.00025	.00063	.00097	.00076	.00019	.00006	.00225	.00959	.00025	.00012	.00004	.00024
%RSD	2.2921	.64575	8.0731	.81795	1.9786	7.0889	2.2401	4.6222	5.5833	1.2062	.41012	1.6719

#1	.01092	.09721	.01136	.09379	.00996	.00080	.10196	.21421	.00437	.01029	.01011	.01418
#2	.01057	.09810	.01273	.09272	.00968	.00088	.09878	.20065	.00473	.01012	.01017	.01452

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09687	3.1649	.01114	.20316	.01039	.01817	1.0896	.03950	2.6713	.00945	.00375	.00773
Stddev	.00030	.0171	.00015	.00770	.00005	.00028	.0207	.00026	.0132	.00122	.00032	.00117
%RSD	.30682	.54055	1.3325	3.7889	.49350	1.5289	1.8981	.66657	.49214	12.919	8.4533	15.102

#1	.09666	3.1770	.01104	.19771	.01035	.01837	1.1042	.03968	2.6806	.01031	.00398	.00855
#2	.09708	3.1528	.01125	.20860	.01042	.01797	1.0749	.03931	2.6620	.00859	.00353	.00690

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .02211	.47086	1.0077	.09269	.00970	.01631	.00947	.01635	.05874	.01012	.02272	.01706
Stddev	.00409	.00487	.0104	.00011	.00000	.00066	.00018	.00172	.00395	.00023	.00056	.00068
%RSD	18.482	1.0337	1.0337	.12040	.04422	4.0201	1.9086	10.518	6.7244	2.2441	2.4852	4.0021

#1	.01922	.47431	1.0150	.09261	.00971	.01584	.00960	.01514	.06153	.00996	.02232	.01658
#2	.02500	.46742	1.0003	.09277	.00970	.01677	.00935	.01757	.05594	.01028	.02312	.01754

Check ?	Chk Fail	Chk Pass										
Value	.01500											
Range	30.000%											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3376.9	64039.	6722.5
Stddev	3.5	360.	10.9
%RSD	.10493	.56146	.16285

#1	3374.4	63785.	6714.7
#2	3379.5	64294.	6730.2

Sample Name: 280-69945-A-2-A Acquired: 6/5/2015 16:06:01 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280185 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00085	.00298	.00171	.13337	.25992	-.00009	-.00413	18.349	.00018
Stddev	.00002	.00014	.00165	.00114	.00263	.00001	.00169	.167	.00019
%RSD	2.4245	4.6094	96.740	.85729	1.0109	6.3601	40.853	.91274	108.70

#1	.00083	.00307	.00288	.13256	.25806	-.00009	-.00533	18.230	.00004
#2	.00086	.00288	.00054	.13418	.26178	-.00008	-.00294	18.467	.00031

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00074	.00073	.00062	.03225	12.312	.03136	12.754	.18278	.00066
Stddev	.00010	.00008	.00016	.00202	.231	.00161	.051	.00042	.00002
%RSD	12.935	11.340	26.631	6.2615	1.8724	5.1311	.39692	.22856	3.5768

#1	-.00067	.00068	.00050	.03082	12.149	.03022	12.719	.18248	.00065
#2	-.00081	.00079	.00073	.03368	12.475	.03250	12.790	.18307	.00068

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	138.49	-.00070	.10855	.00193	4.7020	-.00150	.00533	11.291	24.164
Stddev	.92	.00086	.00303	.00006	.0745	.00097	.00178	.184	.394
%RSD	.66210	122.79	2.7891	2.9968	1.5849	64.539	33.297	1.6305	1.6305

#1	137.84	-.00009	.10641	.00189	4.6493	-.00081	.00659	11.161	23.885
#2	139.14	-.00131	.11070	.00198	4.7547	-.00218	.00408	11.422	24.442

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00048	.19238	.00085	-.00033	-.00089	-.02654	-.00125	.00085	.00222
Stddev	.00120	.00181	.00097	.00013	.00152	.02288	.00045	.00118	.00015
%RSD	248.58	.94245	114.95	39.449	171.65	86.210	36.035	139.48	6.9296

#1	-.00134	.19109	.00016	-.00042	-.00196	-.04272	-.00093	.00169	.00211
#2	.00037	.19366	.00153	-.00024	.00019	-.01036	-.00157	.00001	.00233

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3285.2	61716.	6739.4
Stddev	8.3	97.	10.4
%RSD	.25386	.15797	.15400

#1	3279.3	61785.	6746.7
#2	3291.1	61647.	6732.1

Sample Name: 280-69945-A-3-A Acquired: 6/5/2015 16:08:40 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280185 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.00098	.00170	.13998	.13179	-.00019	-.00444	17.784	.00005
Stddev	.00002	.00012	.00035	.00014	.00191	.00005	.00113	.279	.00003
%RSD	18.663	12.105	20.741	.09691	1.4457	28.045	25.431	1.5690	67.366

#1	.00012	.00106	.00145	.14008	.13044	-.00015	-.00523	17.586	.00003
#2	.00009	.00089	.00195	.13989	.13314	-.00022	-.00364	17.981	.00008

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00047	.00036	.00125	.20265	4.1136	.01861	11.268	.28493	-.00020
Stddev	.00043	.00004	.00015	.00612	.1047	.00021	.033	.00087	.00013
%RSD	91.168	11.003	11.859	3.0211	2.5456	1.1544	.29580	.30557	65.600

#1	-.00077	.00039	.00135	.19832	4.0396	.01876	11.292	.28431	-.00030
#2	-.00017	.00033	.00114	.20698	4.1877	.01846	11.245	.28554	-.00011

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	128.90	-.00046	.15948	.00140	.91315	.00082	.00590	12.220	26.151
Stddev	2.19	.00016	.00229	.00029	.00793	.00179	.00254	.336	.719
%RSD	1.6995	34.542	1.4337	20.413	.86798	218.13	43.025	2.7504	2.7504

#1	127.35	-.00058	.15786	.00120	.91875	.00209	.00411	11.982	25.642
#2	130.45	-.00035	.16110	.00160	.90754	-.00045	.00770	12.458	26.660

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	.15374	.00036	-.00042	-.00111	-.03034	-.00068	.00170	.00364
Stddev	.00017	.00194	.00157	.00050	.00160	.00418	.00069	.00051	.00297
%RSD	132.13	1.2630	438.92	119.34	144.84	13.785	102.55	29.936	81.593

#1	-.00024	.15236	-.00075	-.00007	.00003	-.02738	-.00019	.00134	.00575
#2	-.00001	.15511	.00147	-.00078	-.00224	-.03329	-.00117	.00206	.00154

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3279.3	61495.	6731.7
Stddev	5.7	372.	105.6
%RSD	.17495	.60433	1.5681

#1	3275.2	61758.	6806.4
#2	3283.3	61232.	6657.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00014	.00543	.00132	.13093	.34797	-.00010	-.00335	14.570	-.00012
Stddev	.00059	.00060	.00199	.00022	.00402	.00005	.00097	.190	.00009
%RSD	420.65	10.999	150.13	.17078	1.1552	49.969	28.962	1.3028	73.537

#1	-.00028	.00501	.00273	.13109	.34513	-.00013	-.00267	14.436	-.00006
#2	.00055	.00586	-.00008	.13078	.35081	-.00006	-.00404	14.704	-.00018

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00044	.00052	.00045	.02234	11.695	.02580	10.318	.09608	.00222
Stddev	.00065	.00007	.00114	.00061	.054	.00040	.024	.00008	.00013
%RSD	146.10	13.599	253.04	2.7392	.46372	1.5339	.22997	.08065	5.6844

#1	.00001	.00057	.00126	.02191	11.733	.02552	10.335	.09614	.00213
#2	-.00090	.00047	-.00036	.02277	11.656	.02608	10.301	.09603	.00231

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	120.00	-.00041	.18516	.00139	.65953	-.00101	.00838	12.364	26.458
Stddev	1.44	.00056	.00240	.00023	.00575	.00135	.00455	.234	.502
%RSD	1.2042	135.70	1.2978	16.483	.87143	134.06	54.365	1.8965	1.8965

#1	118.98	-.00081	.18346	.00155	.65546	-.00005	.01160	12.198	26.103
#2	121.03	-.00002	.18686	.00122	.66359	-.00197	.00516	12.529	26.813

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	.17592	.00098	-.00015	-.00186	-.02429	-.00034	.00094	.00231
Stddev	.00040	.00195	.00056	.00002	.00081	.03112	.00021	.00031	.00186
%RSD	375.31	1.1074	57.024	12.690	43.803	128.14	62.013	32.793	80.313

#1	.00039	.17454	.00137	-.00013	-.00128	-.04630	-.00019	.00072	.00100
#2	-.00018	.17729	.00058	-.00016	-.00244	-.00228	-.00049	.00116	.00362

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3296.9	61887.	6777.7
Stddev	4.7	309.	64.5
%RSD	.14219	.50006	.95124

#1	3300.3	62105.	6823.2
#2	3293.6	61668.	6732.1

Sample Name: 280-69945-A-5-A Acquired: 6/5/2015 16:13:58 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280185 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.00361	.01832	.12599	.21586	-.00012	.00041	16.300	-.00004
Stddev	.00038	.00009	.00244	.00039	.00213	.00005	.00162	.192	.00015
%RSD	1838.2	2.5712	13.335	.30802	.98694	40.133	392.57	1.1787	343.75

#1	.00029	.00368	.01659	.12572	.21435	-.00008	-.00073	16.164	.00006
#2	-.00025	.00354	.02004	.12627	.21737	-.00015	.00156	16.436	-.00015

Check ? Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00036	.00080	.00033	.19697	3.4575	.01769	9.2390	.19746	.00783
Stddev	.00023	.00006	.00037	.00697	.0727	.00000	.0030	.00020	.00033
%RSD	64.440	8.0180	112.01	3.5387	2.1025	.02109	.03289	.10122	4.1782

#1	-.00053	.00085	.00007	.19204	3.4061	.01770	9.2412	.19732	.00760
#2	-.00020	.00076	.00059	.20190	3.5089	.01769	9.2369	.19760	.00806

Check ? Chk Pass
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	119.13	-.00034	.23524	.00459	1.8820	.00003	.01069	10.910	23.348
Stddev	1.86	.00008	.00216	.00027	.0205	.00014	.00090	.221	.474
%RSD	1.5576	22.459	.91790	5.9386	1.0883	420.43	8.4297	2.0285	2.0285

#1	117.82	-.00029	.23372	.00479	1.8675	.00013	.01133	10.754	23.013
#2	120.44	-.00039	.23677	.00440	1.8965	-.00007	.01005	11.067	23.683

Check ? Chk Pass
 High Limit
 Low Limit

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00027	.15147	-.00028	-.00004	.00051	-.01349	-.00103	.00136	.00128
Stddev	.00089	.00154	.00180	.00010	.00079	.01244	.00028	.00035	.00158
%RSD	329.95	1.0170	643.48	247.06	154.61	92.280	27.294	25.974	123.69

#1	.00090	.15038	-.00155	-.00011	-.00005	-.00469	-.00083	.00111	.00240
#2	-.00036	.15256	.00099	.00003	.00107	-.02228	-.00123	.00161	.00016

Check ? Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3302.7	61969.	6736.1
Stddev	11.8	29.	65.7
%RSD	.35838	.04691	.97493

#1	3294.3	61990.	6782.5
#2	3311.1	61949.	6689.7

Sample Name: 280-69945-A-6-A Acquired: 6/5/2015 16:16:38 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280185 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0012	.00223	.01028	.12925	.20750	-0.0005	-0.00199	17.015	-0.0022
Stddev	.00010	.00019	.00317	.00076	.00113	.00002	.00129	.155	.00006
%RSD	84.880	8.3101	30.810	.59142	.54318	45.588	64.697	.90891	25.882

#1	-0.0005	.00237	.00804	.12979	.20671	-0.0004	-0.00108	16.906	-0.0018
#2	-0.0019	.00210	.01252	.12871	.20830	-0.0007	-0.00290	17.124	-0.0026

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0052	.00055	.00021	.12770	3.1862	.01819	9.4098	.16693	.00651
Stddev	.00007	.00012	.00001	.00077	.0425	.00045	.0233	.00058	.00015
%RSD	14.239	22.843	3.8022	.60638	1.3352	2.4802	.24759	.34460	2.2750

#1	-0.0057	.00046	.00020	.12716	3.1562	.01787	9.3933	.16653	.00661
#2	-0.0047	.00064	.00021	.12825	3.2163	.01851	9.4262	.16734	.00640

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	129.10	-0.0048	.45984	.00247	.61551	.00034	.00304	11.096	23.746
Stddev	1.24	.00071	.00436	.00135	.00757	.00227	.00248	.116	.248
%RSD	.96165	148.38	.94830	54.787	1.2305	666.76	81.457	1.0453	1.0453

#1	128.23	-0.00098	.46293	.00343	.62087	-0.00127	.00129	11.014	23.571
#2	129.98	.00002	.45676	.00152	.61015	.00195	.00479	11.178	23.922

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0044	.16506	.00052	.00193	-0.00064	-0.02762	-0.00072	.00009	.00255
Stddev	.00066	.00080	.00258	.00003	.00136	.00145	.00019	.00015	.00065
%RSD	150.05	.48468	496.00	1.7880	213.83	5.2354	26.359	164.37	25.685

#1	-0.0090	.16450	-0.00130	.00195	-0.00160	-0.02864	-0.00059	-0.00001	.00208
#2	.00003	.16563	.00234	.00190	.00033	-0.02660	-0.00086	.00019	.00301

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3307.1	62711.	6889.1
Stddev	1.8	29.	47.9
%RSD	.05545	.04584	.69511

#1	3308.4	62691.	6922.9
#2	3305.8	62732.	6855.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00036	.00225	-0.00159	.00050	-0.00068	-0.00007	-0.00099	.00801	-0.00006
Stddev	.00070	.00034	.00251	.00010	.00004	.00000	.00116	.00005	.00009
%RSD	195.11	15.025	157.22	19.547	5.9675	1.1129	117.45	.63995	149.14

#1	-0.00086	.00248	.00018	.00057	-0.00065	-0.00007	-0.00181	.00797	-0.00013
#2	.00014	.00201	-0.00337	.00043	-0.00070	-0.00007	-0.00017	.00804	.00000

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00002	.00047	-0.00074	.00248	.14411	.00304	-0.00371	.00010	-0.00015
Stddev	.00005	.00020	.00010	.00039	.00910	.00178	.00181	.00002	.00020
%RSD	201.18	43.752	14.135	15.700	6.3166	58.431	48.784	18.201	130.36

#1	-0.00006	.00032	-0.00081	.00220	.15055	.00430	-0.00243	.00009	-0.00029
#2	.00001	.00061	-0.00067	.00275	.13768	.00178	-0.00498	.00011	-0.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.13971	-0.00011	-0.00144	-0.00053	.00654	-0.00003	.00571	.00265	.00567
Stddev	.02803	.00017	.00195	.00062	.00141	.00129	.00126	.01507	.03224
%RSD	20.067	157.77	135.81	116.50	21.573	3724.0	22.119	569.11	569.11

#1	.15953	.00001	-0.00006	-0.00097	.00554	.00087	.00482	.01330	.02846
#2	.11988	-0.00023	-0.00282	-0.00009	.00753	-0.00094	.00660	-0.00801	-0.01713

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00167	.00012	.00295	-0.00024	.00215	-0.04221	-0.00009	.00161	.00123
Stddev	.00055	.00007	.00224	.00030	.00005	.01068	.00020	.00035	.00199
%RSD	32.816	60.051	75.983	125.59	2.2091	25.315	228.14	21.952	161.42

#1	-0.00205	.00017	.00136	-0.00045	.00219	-0.04976	-0.00022	.00186	.00264
#2	-0.00128	.00007	.00453	-0.00003	.00212	-0.03465	.00005	.00136	-0.00017

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3399.2	64633.	6764.2
Stddev	1.4	306.	31.7
%RSD	.04102	.47292	.46877

#1	3398.2	64849.	6786.6
#2	3400.2	64417.	6741.8

Sample Name: 280-69945-A-8-A Acquired: 6/5/2015 16:21:38 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280185 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00000	.00218	.01254	.13000	.20596	-.00013	-.00059	17.164	-.00010
Stddev	.0002	.00028	.00498	.00106	.00077	.00006	.00018	.047	.00004
%RSD	8353.3	12.725	39.710	.81262	.37619	48.274	30.753	.27668	44.208

#1	-.00017	.00237	.00902	.12926	.20541	-.00017	-.00046	17.131	-.00013
#2	.00016	.00198	.01606	.13075	.20651	-.00008	-.00071	17.198	-.00007

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00058	.00038	-.00024	.13448	3.1818	.01933	9.4599	.16880	.00637
Stddev	.00012	.00006	.00035	.00150	.0598	.00048	.0012	.00012	.00005
%RSD	19.792	16.590	145.72	1.1170	1.8801	2.4659	.01228	.07238	.81342

#1	-.00067	.00034	-.00048	.13341	3.2241	.01899	9.4607	.16889	.00634
#2	-.00050	.00043	.00001	.13554	3.1395	.01967	9.4591	.16872	.00641

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	129.38	-.00015	.47012	.00321	.62659	.00314	.00535	11.322	24.230
Stddev	1.27	.00038	.00275	.00031	.00204	.00189	.00129	.096	.205
%RSD	.97857	246.48	.58523	9.7886	.32500	60.341	24.166	.84528	.84528

#1	128.49	.00011	.46818	.00344	.62803	.00180	.00444	11.255	24.085
#2	130.28	-.00042	.47207	.00299	.62515	.00447	.00627	11.390	24.375

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	.16498	-.00030	-.00010	.00001	-.00676	-.00055	.00136	.00152
Stddev	.00003	.00092	.00119	.00020	.00170	.01201	.00024	.00058	.00095
%RSD	375.25	.55786	394.97	200.08	21462.	177.53	43.105	42.604	62.025

#1	.00001	.16433	-.00114	.00004	-.00119	.00173	-.00038	.00177	.00219
#2	-.00003	.16563	.00054	-.00024	.00121	-.01525	-.00072	.00095	.00086

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3289.2	61343.	6719.3
Stddev	4.9	289.	25.7
%RSD	.15014	.47158	.38181

#1	3292.7	61548.	6701.1
#2	3285.7	61139.	6737.4

Sample Name: 280-69945-A-9-A Acquired: 6/5/2015 16:24:17 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280185 200.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00005	.00459	.00019	.13451	.14981	.00001	-0.00349	17.369	.00011
Stddev	.00068	.00066	.00184	.00087	.00217	.00006	.00125	.248	.00010
%RSD	1246.9	14.446	978.28	.64510	1.4481	962.86	35.904	1.4279	94.759

#1	.00043	.00506	-.00111	.13512	.14828	-.00004	-.00260	17.193	.00004
#2	-.00054	.00412	.00149	.13390	.15135	.00005	-.00437	17.544	.00018

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00048	.00060	.00025	.30081	3.8941	.02187	10.314	.18101	.00344
Stddev	.00010	.00019	.00026	.00669	.0833	.00046	.015	.00043	.00007
%RSD	21.308	30.806	104.24	2.2229	2.1400	2.1164	.14787	.23546	2.0180

#1	-.00040	.00047	.00006	.29608	3.8352	.02220	10.325	.18132	.00349
#2	-.00055	.00073	.00043	.30554	3.9531	.02155	10.303	.18071	.00339

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	130.47	-.00049	.18825	.00220	1.0249	.00091	.00657	12.019	25.721
Stddev	1.62	.00022	.00094	.00132	.0082	.00198	.00634	.233	.499
%RSD	1.2388	45.040	.50014	59.998	.80242	217.46	96.487	1.9390	1.9390

#1	129.33	-.00033	.18759	.00127	1.0191	-.00049	.00209	11.855	25.369
#2	131.61	-.00065	.18892	.00314	1.0307	.00231	.01105	12.184	26.074

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00065	.15695	.00149	-.00042	.00020	-.03589	-.00060	.00070	.00320
Stddev	.00028	.00216	.00324	.00027	.00085	.01938	.00024	.00051	.00204
%RSD	43.218	1.3771	217.07	64.856	434.77	53.993	40.153	72.235	63.733

#1	-.00085	.15542	-.00080	-.00061	-.00040	-.02219	-.00043	.00106	.00464
#2	-.00045	.15848	.00378	-.00023	.00080	-.04960	-.00077	.00034	.00176

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3334.9	62241.	6833.1
Stddev	12.1	152.	71.9
%RSD	.36340	.24356	1.0523

#1	3326.3	62134.	6883.9
#2	3343.4	62349.	6782.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00028	.00204	-.00062	.14497	.16625	-.00008	-.00225	19.712	-.00010
Stddev	.00003	.00002	.00121	.00075	.00068	.00010	.00055	.043	.00008
%RSD	12.240	1.0085	193.35	.51877	.40933	124.42	24.570	.21604	79.673

#1	.00026	.00205	-.00148	.14550	.16577	-.00001	-.00186	19.682	-.00016
#2	.00031	.00202	.00023	.14444	.16673	-.00016	-.00264	19.742	-.00004

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00068	.00067	-.00010	.03327	5.0254	.02242	11.928	.18647	.00220
Stddev	.00043	.00004	.00065	.00124	.0747	.00170	.001	.00048	.00012
%RSD	62.288	6.3762	644.32	3.7249	1.4859	7.5659	.00547	.25740	5.4420

#1	-.00038	.00070	.00036	.03239	4.9726	.02362	11.928	.18613	.00229
#2	-.00099	.00064	-.00056	.03415	5.0782	.02122	11.927	.18681	.00212

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	133.14	-.00026	.18799	.00334	1.7416	-.00088	.00743	12.024	25.731
Stddev	.49	.00005	.00114	.00105	.0027	.00119	.00458	.149	.319
%RSD	.37008	20.051	.60499	31.349	.15512	135.53	61.648	1.2386	1.2386

#1	132.79	-.00030	.18719	.00260	1.7397	-.00004	.01067	11.919	25.506
#2	133.49	-.00023	.18880	.00408	1.7435	-.00173	.00419	12.129	25.957

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00000	.17666	.00154	-.00048	-.00127	.00753	-.00086	.00206	.00346
Stddev	.0002	.00028	.00070	.00048	.00213	.00085	.00045	.00051	.00102
%RSD	11621.	.15924	45.417	99.915	168.37	11.273	51.681	24.806	29.418

#1	.00012	.17646	.00203	-.00081	.00024	.00813	-.00055	.00170	.00418
#2	-.00012	.17685	.00104	-.00014	-.00277	.00693	-.00118	.00242	.00274

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3322.7	62300.	6922.2
Stddev	14.5	173.	37.5
%RSD	.43503	.27784	.54109

#1	3332.9	62423.	6895.7
#2	3312.5	62178.	6948.7

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00306	48.479	-.00120	-.00043	-.00051	.00007	.96630	.03622	-.00011	-.00142	.00067
Stddev	.00060	.511	.00093	.00086	.00027	.00007	.00185	.00261	.00005	.00020	.00017
%RSD	19.564	1.0543	77.404	201.71	53.720	93.519	.19195	7.2192	44.147	13.889	24.625

#1	.00348	48.117	-.00054	.00018	-.00032	.00012	.96761	.03807	-.00008	-.00156	.00055
#2	.00264	48.840	-.00185	-.00104	-.00070	.00002	.96499	.03437	-.00015	-.00128	.00079

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00031	47.783	.21439	.00296	-.02777	-.00150	-.00059	241.68	.00110	.00411	.00244
Stddev	.00075	.174	.01887	.00067	.00384	.00005	.00032	1.60	.00034	.00027	.00046
%RSD	239.24	.36360	8.8025	22.610	13.838	3.4727	53.699	.66175	30.819	6.4774	18.803

#1	-.00022	47.660	.22773	.00343	-.03049	-.00153	-.00082	240.55	.00086	.00430	.00277
#2	.00085	47.906	.20104	.00248	-.02505	-.00146	-.00037	242.81	.00134	.00392	.00212

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.6596	-.01064	.00182	-.02399	-.05135	-.00345	.00029	4.8975	-.01740	.00403	10.377
Stddev	.0365	.00314	.00178	.00709	.01517	.00056	.00004	.0256	.00072	.00061	.198
%RSD	.78418	29.556	97.685	29.541	29.541	16.197	14.262	.52368	4.1594	15.070	1.9115

#1	4.6854	-.00841	.00307	-.02901	-.06207	-.00384	.00032	4.9156	-.01689	.00446	10.518
#2	4.6337	-.01286	.00056	-.01898	-.04062	-.00305	.00026	4.8793	-.01792	.00360	10.237

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	5.0000										
Range	-5.0000%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00307	.00105	.08478
Stddev	.00019	.00037	.00608
%RSD	6.2219	35.251	7.1669

#1	.00321	.00131	.08048
#2	.00294	.00079	.08908

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3311.0	61965.	6773.4
Stddev	2.5	275.	37.4
%RSD	.07645	.44383	.55257

#1	3312.7	61770.	6799.8
#2	3309.2	62159.	6746.9

Sample Name: CCV-3305006 Acquired: 6/5/2015 16:32:12 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50761	.48138	.92999	.48063	.49633	.46984	-.00229	4.9287	.47970	.49089	.48719	.49455	2.3803
Stddev	.00380	.00122	.00653	.00025	.00217	.00132	.00125	.0230	.00180	.00284	.00022	.00132	.0015
%RSD	.74944	.25446	.70220	.05178	.43805	.28005	54.807	.46653	.37542	.57876	.04541	.26787	.06516

#1	.50492	.48051	.92537	.48080	.49787	.47077	-.00317	4.9450	.48097	.48888	.48735	.49361	2.3814
#2	.51030	.48224	.93460	.48045	.49480	.46891	-.00140	4.9124	.47843	.49289	.48703	.49548	2.3793

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.196	.96904	20.008	.49422	.45843	5.0372	.49201	.94429	.97627	.00525	.94743	.94549	4.7455
Stddev	.039	.00090	.105	.00066	.00303	.0337	.00214	.00830	.00440	.00575	.00594	.00206	.0622
%RSD	.07893	.09241	.52466	.13264	.66104	.66844	.43535	.87875	.45094	109.50	.62671	.21771	1.3112

#1	49.223	.96840	19.934	.49375	.45629	5.0610	.49050	.93842	.97316	.00932	.95162	.94695	4.7895
#2	49.169	.96967	20.082	.49468	.46057	5.0133	.49353	.95016	.97938	.00119	.94323	.94404	4.7015

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.155	.92105	.47750	-.00185	.48786	.95886	-.00993	.50072	.48325	.49069
Stddev	.133	.00050	.00098	.00004	.00114	.00407	.00420	.00231	.00119	.00585
%RSD	1.3112	.05410	.20479	1.9709	.23353	.42487	42.259	.46112	.24652	1.1914

#1	10.250	.92070	.47819	-.00188	.48706	.95597	-.00696	.50235	.48409	.49482
#2	10.061	.92140	.47681	-.00183	.48867	.96174	-.01290	.49909	.48241	.48656

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3369.0	63811.	6724.6
Stddev	13.9	14.	20.5
%RSD	.41172	.02189	.30506

#1	3378.8	63821.	6710.1
#2	3359.2	63801.	6739.1

Sample Name: CCB Acquired: 6/5/2015 16:34:41 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00005	-.00024	W -.00509	-.00060	.00010	-.00001	-.00258	.00183	.00005	-.00007	.00017
Stddev	.00044	.00019	.00092	.00016	.00064	.00005	.00097	.00786	.00008	.00019	.00008
%RSD	831.40	77.346	18.045	26.847	620.41	350.23	37.682	430.62	144.82	294.07	47.598

#1	.00036	-.00011	-.00574	-.00048	-.00035	.00002	-.00326	-.00373	.00000	.00007	.00023
#2	-.00026	-.00037	-.00444	-.00071	.00056	-.00005	-.00189	.00739	.00011	-.00020	.00011

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass							
High Limit			.00500								
Low Limit			-.00500								

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00101	-.00241	.16052	.00351	-.00605	.00007	.00034	.10734	-.00019	.00010	.00069
Stddev	.00051	.00002	.01183	.00102	.00344	.00004	.00009	.00585	.00009	.00276	.00049
%RSD	50.801	.97090	7.3681	29.190	56.819	51.678	27.568	5.4536	49.168	2781.5	71.053

#1	-.00137	-.00239	.16888	.00279	-.00362	.00004	.00028	.11148	-.00012	.00205	.00035
#2	-.00065	-.00242	.15215	.00424	-.00848	.00009	.00041	.10320	-.00026	-.00185	.00104

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00105	-.00021	F .00795	-.00380	-.00812	-.00085	.00006	.00168	-.00027	.00180	-.03271
Stddev	.00473	.00149	.00572	.00339	.00725	.00013	.00015	.00042	.00016	.00064	.03544
%RSD	449.71	704.48	71.953	89.219	89.219	15.010	237.27	24.981	59.074	35.685	108.33

#1	.00440	.00084	.00391	-.00619	-.01325	-.00095	.00017	.00138	-.00039	.00225	-.00765
#2	-.00229	-.00127	.01200	-.00140	-.00300	-.00076	-.00004	.00198	-.00016	.00134	-.05777

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass							
High Limit			.00500								
Low Limit			-.00500								

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	-.00017	.00048	.00276
Stddev	.00035	.00043	.00059
%RSD	204.13	89.459	21.203

#1	-.00042	.00078	.00317
#2	.00008	.00018	.00235

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3361.0	63366.	6635.1
Stddev	9.3	79.	20.7
%RSD	.27642	.12537	.31227

#1	3354.5	63310.	6620.4
#2	3367.6	63422.	6649.7

Sample Name: CCVL3312280 Acquired: 6/5/2015 16:37:03 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00997	.09815	.01471	.09422	.01018	.00087	.10422	.20975	.00465	.01020	.01002	.01416
Stddev	.00105	.00032	.00446	.00018	.00001	.00016	.00171	.00669	.00001	.00020	.00036	.00065
%RSD	10.558	.32696	30.351	.18880	.12548	17.942	1.6427	3.1897	.14068	1.9474	3.5662	4.5749

#1	.01072	.09837	.01786	.09435	.01017	.00098	.10301	.21448	.00465	.01034	.01028	.01462
#2	.00923	.09792	.01155	.09409	.01019	.00076	.10544	.20502	.00464	.01006	.00977	.01370

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09738	3.1276	.01182	.21258	.01054	.01825	1.1119	.04046	2.6954	.00986	.00315	.00944
Stddev	.00343	.1210	.00095	.00068	.00004	.00005	.0254	.00012	.0108	.00023	.00303	.00150
%RSD	3.5211	3.8674	8.0545	.32057	.41465	.29332	2.2813	.30156	.39963	2.3095	96.256	15.874

#1	.09980	3.2131	.01115	.21210	.01057	.01829	1.1299	.04037	2.7030	.00970	.00529	.01050
#2	.09495	3.0421	.01249	.21306	.01051	.01821	1.0940	.04054	2.6878	.01002	.00101	.00838

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .02131	.45354	.97057	.09190	.00989	.01695	.00952	.01669	.05024	.01008	.02135	.01752
Stddev	.00291	.00489	.01046	.00147	.00028	.00017	.00057	.00091	.02170	.00029	.00101	.00084
%RSD	13.636	1.0778	1.0778	1.5974	2.8737	.97900	6.0304	5.4489	43.195	2.9081	4.7347	4.7946

#1	.02337	.45700	.97797	.09294	.01009	.01707	.00993	.01604	.06559	.01029	.02207	.01811
#2	.01926	.45008	.96318	.09086	.00969	.01683	.00911	.01733	.03490	.00987	.02064	.01693

Check ?	Chk Fail	Chk Pass										
Value	.01500											
Range	30.000%											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3393.1	63658.	6707.3
Stddev	9.2	316.	81.7
%RSD	.27001	.49615	1.2186

#1	3386.7	63434.	6649.5
#2	3399.6	63881.	6765.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00014	.00417	.00407	-.00183	.00173	-.00011	-.00081	.08319	-.00035
Stddev	.00031	.00045	.00397	.00089	.00007	.00006	.00142	.00217	.00016
%RSD	219.06	10.714	97.713	48.366	4.2932	51.425	174.81	2.6099	45.344

#1	.00036	.00448	.00126	-.00246	.00179	-.00007	.00019	.08473	-.00024
#2	-.00008	.00385	.00688	-.00120	.00168	-.00016	-.00182	.08166	-.00046

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00181	.00044	.00539	.02073	1.0353	.00456	.00317	.00082	-.00042
Stddev	.00001	.00002	.00009	.00021	.1838	.00035	.00616	.00003	.00002
%RSD	.82388	4.1428	1.7017	1.0190	17.757	7.7445	194.44	3.5063	5.7088

#1	-.00180	.00045	.00546	.02059	.90528	.00481	-.00119	.00080	-.00040
#2	-.00182	.00043	.00533	.02088	1.1653	.00431	.00752	.00084	-.00043

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1852.1	.00053	.03568	-.00044	W .07602	.00279	F .03041	.02228	.04768
Stddev	2.7	.00018	.00307	.00043	.00965	.00185	.00010	.00669	.01431
%RSD	.14715	34.987	8.5974	96.859	12.687	66.334	.32263	30.011	30.011

#1	1854.1	.00040	.03785	-.00014	.08284	.00410	.03034	.02701	.05780
#2	1850.2	.00066	.03352	-.00075	.06920	.00148	.03048	.01755	.03756

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	None
High Limit					.05000		.01500		
Low Limit					-.05000		-.01500		

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00831	.00146	-.00157	-.00016	-.00178	-.03543	-.00185	.00242	.00293
Stddev	.00116	.00002	.00013	.00049	.00055	.00811	.00044	.00121	.00072
%RSD	13.981	1.5018	8.3271	304.71	30.886	22.902	23.979	49.957	24.454

#1	.00913	.00148	-.00167	.00019	-.00140	-.02969	-.00216	.00157	.00242
#2	.00749	.00145	-.00148	-.00051	-.00217	-.04117	-.00154	.00328	.00344

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2922.7	52578.	6346.6
Stddev	6.9	155.	11.0
%RSD	.23544	.29443	.17332

#1	2917.8	52469.	6354.3
#2	2927.5	52688.	6338.8

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 2.1985	1.8945	F 2.4757	F 1.5487	1.0911	F 3.7203	.05250	2.1014	53.740
Stddev	.00092	.0040	.0227	.0015	.0044	.0213	.00071	.0085	.169
%RSD	.41764	.21403	.91734	.09748	.40484	.57247	1.3512	.40262	.31424

#1	.22050	1.8973	2.4596	1.5476	1.0942	3.7053	.05200	2.1074	53.621
#2	.21920	1.8916	2.4917	1.5497	1.0880	3.7354	.05300	2.0955	53.859

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass
High Limit	.05750		2.2250	1.1050		2.2499			
Low Limit	.04275		1.7300	.87500		1.7900			

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .25871	.52415	F .79440	F .57733	1.0686	F 60.042	1.1313	51.317	F .56566
Stddev	.00122	.00063	.00037	.00389	.0179	.385	.0050	.222	.00141
%RSD	.47243	.11963	.04690	.67389	1.6703	.64181	.44142	.43166	.24997

#1	.25957	.52459	.79466	.58008	1.0560	59.769	1.1278	51.160	.56466
#2	.25784	.52370	.79414	.57458	1.0812	60.314	1.1349	51.473	.56666

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
High Limit	.11100		.05750	.28000		57.000			.55000
Low Limit	.08800		.04275	.21500		44.500			.45000

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 1.1448	F 1776.7	.52172	F 11.453	F 1.1540	2.3555	F .59055	F 2.5464	F 11.430
Stddev	.0012	9.0	.00232	.049	.0008	.0029	.00017	.0311	.110
%RSD	.10049	.50877	.44401	.42859	.07186	.12304	.02863	1.2212	.96203

#1	1.1456	1770.3	.52336	11.487	1.1534	2.3575	.59067	2.5244	11.352
#2	1.1440	1783.1	.52008	11.418	1.1546	2.3534	.59043	2.5684	11.508

Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Fail	None	Chk Fail	Chk Fail	Chk Fail
High Limit	1.1000	56.000		11.100	.55000		.55499	2.2400	11.000
Low Limit	.90000	45.500		9.1000	.44500		.44000	1.7000	9.0000

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.460	2.0940	1.0751	1.1232	F 1.2023	F 1.7498	2.2683	F .58482	F .85278
Stddev	.235	.0062	.0056	.0020	.0025	.0094	.0261	.00246	.00603
%RSD	.96203	.29593	.52218	.17963	.21069	.53665	1.1518	.42097	.70652

#1	24.294	2.0896	1.0711	1.1217	1.2005	1.7431	2.2868	.58308	.84852
#2	24.627	2.0984	1.0791	1.1246	1.2041	1.7564	2.2498	.58656	.85704

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Fail
High Limit					1.1100	2.2000		.55500	.55500
Low Limit					.90000	1.7600		.45000	.42500

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	F .60456
Stddev	.00448
%RSD	.74073

#1	.60139
#2	.60773

Check ?	Chk Fail
High Limit	.57500
Low Limit	.42500

Sample Name: LCS 280-279183/2-B Acquired: 6/5/2015 16:43:38 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 279860 6010B

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2937.3	53523.	6477.9
Stddev	5.6	408.	11.2
%RSD	.19026	.76246	.17293
#1	2933.3	53812.	6469.9
#2	2941.2	53235.	6485.8

Sample Name: 280-69741-B-1-B Acquired: 6/5/2015 16:46:31 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 279860 6010B

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0058	10.371	.00712	.03067	.63085	-0.0016	-0.01778	124.06	.00085
Stddev	.00011	.067	.00118	.00013	.00108	.00004	.00354	.22	.00010
%RSD	18.357	.64205	16.630	.43602	.17111	26.407	19.930	.17802	11.855

#1	-0.0050	10.418	.00629	.03076	.63162	-0.0019	-.02029	124.21	.00078
#2	-0.0065	10.324	.00796	.03057	.63009	-0.0013	-.01528	123.90	.00093

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03074	W .15622	.03198	20.876	2.4888	.01167	8.7665	1.3652	.00137
Stddev	.00033	.00151	.00115	.018	.2064	.00139	.0071	.0020	.00000
%RSD	1.0679	.96889	3.5883	.08543	8.2940	11.884	.08095	.14680	.22980

#1	.03051	.15515	.03279	20.889	2.3429	.01265	8.7615	1.3666	.00138
#2	.03097	.15729	.03117	20.863	2.6348	.01069	8.7715	1.3638	.00137

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1557.3	.11129	.94755	.04083	2.9065	.00797	.02968	25.258	54.053
Stddev	2.8	.00130	.00783	.00139	.0216	.00201	.00142	.036	.078
%RSD	.18257	1.1683	.82607	3.4061	.74175	25.275	4.7995	.14387	.14387

#1	1559.3	.11037	.94202	.04182	2.8912	.00940	.02867	25.284	54.108
#2	1555.3	.11221	.95308	.03985	2.9217	.00655	.03068	25.233	53.998

Check ?	Chk Warn	Chk Pass							
High Limit	500.00								
Low Limit	11.000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07406	.44024	.00990	3.5818	-.00578	-.03866	.82266	.13827	.52577
Stddev	.00075	.00039	.00191	.0057	.00177	.04121	.00138	.00186	.00068
%RSD	1.0061	.08849	19.286	.15816	30.611	106.60	.16773	1.3427	.12864

#1	.07353	.44051	.01125	3.5858	-.00703	-.06780	.82363	.13958	.52624
#2	.07459	.43996	.00855	3.5778	-.00453	-.00952	.82168	.13696	.52529

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2983.0	54571.	6509.1
Stddev	6.9	72.	10.7
%RSD	.23157	.13233	.16387

#1	2987.9	54622.	6501.5
#2	2978.1	54520.	6516.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0032	1.1611	.01081	.01546	.32360	.00020	-0.00239	7.9960	.00036
Stddev	.00069	.0025	.00198	.00047	.00004	.00001	.00103	.0120	.00015
%RSD	213.54	.21436	18.302	3.0643	.01380	4.8491	42.873	.14984	42.725

#1	.00016	1.1629	.00941	.01579	.32363	.00020	-.00312	7.9876	.00047
#2	-.00081	1.1594	.01221	.01512	.32357	.00021	-.00167	8.0045	.00025

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01688	.01520	.00810	9.7202	2.3175	.00834	6.8783	.71780	.00015
Stddev	.00008	.00021	.00022	.0143	.1379	.00135	.0088	.00021	.00006
%RSD	.47424	1.4076	2.7585	.14724	5.9504	16.233	.12788	.02891	40.941

#1	.01693	.01535	.00826	9.7101	2.2200	.00738	6.8721	.71795	.00019
#2	.01682	.01504	.00794	9.7303	2.4150	.00930	6.8845	.71765	.00011

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1792.3	.03047	.67439	.01330	.42214	.00172	.02925	3.3454	7.1591
Stddev	.8	.00052	.00660	.00061	.00635	.00187	.00307	.0244	.0523
%RSD	.04706	1.7160	.97903	4.6197	1.5039	108.67	10.500	.73058	.73058

#1	1791.7	.03010	.67906	.01374	.42663	.00040	.03142	3.3281	7.1222
#2	1792.9	.03084	.66972	.01287	.41765	.00304	.02708	3.3627	7.1961

Check ?	Chk Warn	Chk Pass							
High Limit	500.00								
Low Limit	11.000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00902	.10271	.00358	.18531	-.00284	-.04940	.04193	.01700	.01117
Stddev	.00101	.00033	.00140	.00072	.00187	.01763	.00038	.00031	.00107
%RSD	11.215	.31807	39.072	.38846	65.862	35.695	.89792	1.8237	9.5343

#1	.00830	.10248	.00259	.18582	-.00152	-.06186	.04220	.01678	.01042
#2	.00974	.10294	.00456	.18480	-.00417	-.03693	.04167	.01722	.01193

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2969.6	53694.	6491.9
Stddev	.3	264.	28.3
%RSD	.01090	.49242	.43611

#1	2969.4	53507.	6471.9
#2	2969.8	53881.	6511.9

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00021	3.7385	.00600	.00892	.45418	-.00046	-.01368	20.124	.00128
Stddev	.00066	.0387	.00304	.00032	.00011	.00002	.00085	.009	.00029
%RSD	317.88	1.0348	50.625	3.6283	.02465	4.0798	6.2052	.04337	22.954

#1	-.00026	3.7112	.00815	.00915	.45411	-.00045	-.01308	20.118	.00149
#2	.00068	3.7659	.00385	.00869	.45426	-.00048	-.01428	20.130	.00108

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01933	.07558	.02997	6.1823	5.4342	.00981	2.7143	1.6881	.00340
Stddev	.00042	.00158	.00054	.0011	.0766	.00084	.0050	.0005	.00021
%RSD	2.1787	2.0864	1.7973	.01716	1.4101	8.5486	.18348	.02901	6.2165

#1	.01903	.07447	.03035	6.1830	5.3800	.00922	2.7108	1.6885	.00325
#2	.01962	.07670	.02959	6.1815	5.4884	.01040	2.7179	1.6878	.00355

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1560.7	.08327	1.2626	.20301	.40850	.01672	.02943	3.4182	7.3149
Stddev	4.3	.00018	.0200	.00187	.00806	.00428	.00314	.0052	.0111
%RSD	.27488	.21496	1.5842	.91909	1.9724	25.600	10.680	.15145	.15145

#1	1557.6	.08314	1.2484	.20169	.41420	.01369	.02720	3.4145	7.3071
#2	1563.7	.08339	1.2767	.20433	.40280	.01974	.03165	3.4219	7.3228

Check ?	Chk Warn	Chk Pass							
High Limit	500.00								
Low Limit	11.000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08277	.13956	.00669	4.3872	-.00211	-.01436	.75959	1.2193	.14942
Stddev	.00256	.00005	.00111	.0089	.00239	.01225	.00055	.0004	.00024
%RSD	3.0874	.03445	16.637	.20252	113.20	85.330	.07302	.03480	.16309

#1	.08097	.13960	.00590	4.3935	-.00379	-.00570	.75920	1.2196	.14924
#2	.08458	.13953	.00748	4.3809	-.00042	-.02302	.75998	1.2190	.14959

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3044.5	55188.	6617.9
Stddev	10.8	71.	36.2
%RSD	.35479	.12934	.54642

#1	3036.8	55238.	6643.4
#2	3052.1	55137.	6592.3

Sample Name: 280-69745-C-1-B SD@5 Acquired: 6/5/2015 16:57:12 Type: Unk

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment: 279860 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0006	.66463	.00091	.00063	.08309	-0.0009	-0.00273	3.7647	.00013
Stddev	.00004	.01379	.00177	.00023	.00015	.00003	.00102	.0216	.00022
%RSD	70.420	2.0746	195.48	36.633	.17579	31.699	37.354	.57349	174.88

#1	-0.0009	.65488	-0.0035	.00079	.08299	-0.0011	-0.00345	3.7494	.00028
#2	-0.0003	.67438	.00216	.00046	.08320	-0.0007	-0.00201	3.7799	-0.0003

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00392	.01563	.00564	1.1315	1.0824	.00369	.53858	.31087	.00075
Stddev	.00038	.00036	.00038	.0002	.0503	.00047	.00346	.00194	.00050
%RSD	9.6214	2.3268	6.8192	.01671	4.6488	12.692	.64273	.62560	66.470

#1	.00365	.01537	.00537	1.1316	1.1180	.00336	.54102	.30949	.00040
#2	.00419	.01589	.00591	1.1314	1.0468	.00402	.53613	.31224	.00110

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	281.31	.01661	.23569	.04088	.07238	.00077	.01011	.61458	1.3152
Stddev	1.94	.00062	.00461	.00124	.00135	.00086	.00198	.00013	.0003
%RSD	.69020	3.7058	1.9551	3.0374	1.8697	110.84	19.561	.02106	.02106

#1	279.94	.01617	.23243	.04000	.07142	.00017	.01151	.61449	1.3150
#2	282.69	.01704	.23895	.04175	.07333	.00138	.00871	.61467	1.3154

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01832	.02586	.00292	.80344	.00260	-.04501	.14145	.22025	.02818
Stddev	.00050	.00007	.00041	.00649	.00230	.01209	.00085	.00265	.00195
%RSD	2.7265	.28617	14.156	.80803	88.232	26.868	.60258	1.2032	6.9135

#1	.01867	.02581	.00322	.79885	.00098	-.05356	.14085	.21837	.02680
#2	.01797	.02591	.00263	.80803	.00423	-.03646	.14205	.22212	.02956

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3209.0	59429.	6624.8
Stddev	7.3	199.	40.7
%RSD	.22596	.33520	.61503

#1	3203.9	59288.	6596.0
#2	3214.2	59570.	6653.6

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 28945	7.0267	1.8167	1.1485	4.9753	.05533	F 2.2699	80.975	.32626
Stddev	.00093	.0406	.0040	.0013	.0074	.00013	.0071	.232	.00234
%RSD	.32248	.57724	.21893	.11130	.14962	.23369	.31140	.28650	.71767

#1	.28879	6.9981	1.8195	1.1494	4.9805	.05524	2.2749	81.139	.32792
#2	.29011	7.0554	1.8139	1.1476	4.9700	.05542	2.2649	80.811	.32460

Check ?	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass				
High Limit	.10000						.10000		
Low Limit	-.01000						-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.58317	F 1.1143	.74180	8.2140	69.108	1.2250	58.064	2.5830	1.1799
Stddev	.00142	.0049	.00525	.0322	.149	.0006	.130	.0014	.0022
%RSD	.24279	.44068	.70821	.39250	.21575	.04549	.22320	.05559	.18518

#1	.58417	1.1178	.73809	8.2368	69.214	1.2253	57.972	2.5820	1.1814
#2	.58217	1.1109	.74552	8.1912	69.003	1.2246	58.155	2.5840	1.1783

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		1.0000							
Low Limit		-.02000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1905.3	.64417	W 13.821	1.6593	2.8945	.63066	2.7949	15.513	33.199
Stddev	3.6	.00087	.024	.0070	.0093	.00058	.0042	.031	.066
%RSD	.19095	.13457	.17458	.42483	.32266	.09160	.15128	.19803	.19803

#1	1907.9	.64478	13.838	1.6643	2.8879	.63026	2.7919	15.492	33.152
#2	1902.7	.64356	13.803	1.6543	2.9011	.63107	2.7978	15.535	33.245

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass					
High Limit	500.00		2.0000						
Low Limit	11.000		-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2.2222	1.3209	1.1943	6.4739	1.8694	2.3776	1.5123	2.3611	.82288
Stddev	.0075	.0041	.0007	.0117	.0041	.0424	.0039	.0140	.00311
%RSD	.33651	.30767	.05823	.18024	.21904	1.7834	.25762	.59172	.37818

#1	2.2169	1.3238	1.1938	6.4657	1.8665	2.3477	1.5095	2.3709	.82068
#2	2.2275	1.3180	1.1948	6.4822	1.8723	2.4076	1.5150	2.3512	.82508

Check ?	Chk Warn	Chk Pass							
High Limit	2.0000								
Low Limit	-.05000								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2943.5	54044.	6629.3
Stddev	6.1	40.	32.2
%RSD	.20821	.07420	.48572

#1	2939.1	54015.	6606.6
#2	2947.8	54072.	6652.1

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .30820	6.6870	1.8862	1.1205	5.1254	.05605	F 2.3161	79.802	.34521
Stddev	.00106	.0579	.0108	.0004	.0185	.00038	.0054	.356	.00036
%RSD	.34443	.86536	.57189	.03584	.36155	.68120	.23205	.44578	.10416

#1	.30745	6.6461	1.8786	1.1208	5.1123	.05578	2.3123	79.550	.34496
#2	.30895	6.7280	1.8938	1.1202	5.1385	.05632	2.3199	80.053	.34547

Check ?	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass				
High Limit	.10000						.10000		
Low Limit	-.01000						-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.59095	F 1.1891	.77718	7.7619	69.469	1.2364	58.594	2.4552	1.1502
Stddev	.00117	.0022	.00496	.0473	.625	.0098	.135	.0059	.0017
%RSD	.19795	.18183	.63794	.60976	.89995	.79587	.23119	.24122	.14330

#1	.59177	1.1875	.77368	7.7285	69.027	1.2294	58.690	2.4594	1.1490
#2	.59012	1.1906	.78069	7.7954	69.911	1.2434	58.498	2.4510	1.1514

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		1.0000							
Low Limit		-.02000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1779.3	.64708	W 13.885	1.7386	2.8188	.61935	2.8613	14.961	32.016
Stddev	10.5	.00038	.013	.0010	.0027	.00469	.0394	.111	.236
%RSD	.58996	.05926	.09516	.05974	.09556	.75723	1.3759	.73869	.73869

#1	1771.9	.64680	13.895	1.7393	2.8169	.62267	2.8891	14.883	31.849
#2	1786.8	.64735	13.876	1.7378	2.8207	.61604	2.8335	15.039	32.183

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass					
High Limit	500.00		2.0000						
Low Limit	11.000		-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2.1697	1.3240	1.2076	6.1020	1.9273	2.4519	1.4587	2.3090	.79356
Stddev	.0165	.0077	.0024	.0153	.0068	.0157	.0034	.0147	.00381
%RSD	.75998	.58465	.20130	.25057	.35132	.63933	.23327	.63467	.47966

#1	2.1814	1.3185	1.2093	6.1128	1.9320	2.4630	1.4611	2.3193	.79087
#2	2.1581	1.3295	1.2059	6.0912	1.9225	2.4408	1.4563	2.2986	.79625

Check ?	Chk Warn	Chk Pass							
High Limit	2.0000								
Low Limit	-.05000								

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2941.1	54022.	6626.2
Stddev	1.1	354.	52.7
%RSD	.03794	.65599	.79515

#1	2940.3	53772.	6663.4
#2	2941.9	54273.	6588.9

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05303	4.6498	.19913	.10079	.54250	.04575	-.01702	38.170	.05136
Stddev	.00048	.0660	.00241	.00057	.00023	.00018	.00381	.029	.00014
%RSD	.90359	1.4188	1.2094	.56408	.04262	.38835	22.402	.07711	.27098

#1	.05337	4.6032	.20084	.10039	.54234	.04588	-.01432	38.191	.05126
#2	.05270	4.6965	.19743	.10119	.54266	.04562	-.01971	38.149	.05146

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06562	W .11641	.07925	6.8772	25.795	.10799	20.018	1.6849	.04894
Stddev	.00047	.00029	.00037	.0187	.003	.00039	.031	.0027	.00017
%RSD	.71378	.24590	.46209	.27130	.01031	.35713	.15322	.15990	.35572

#1	.06595	.11661	.07951	6.8904	25.797	.10772	19.996	1.6830	.04906
#2	.06529	.11621	.07899	6.8640	25.794	.10826	20.039	1.6868	.04882

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 1556.6	.12788	W 3.2281	.28971	.39875	.10744	.23870	7.9364	16.984
Stddev	1.2	.00064	.0196	.00065	.00047	.00169	.00075	.0000	.000
%RSD	.07862	.49955	.60827	.22452	.11836	1.5756	.31226	.00013	.00013

#1	1557.5	.12833	3.2420	.28925	.39908	.10864	.23923	7.9364	16.984
#2	1555.7	.12743	3.2142	.29017	.39841	.10624	.23817	7.9364	16.984

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass					
High Limit	500.00		2.0000						
Low Limit	11.000		-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.16759	.18460	.20428	4.3218	.15498	.48619	.78444	1.3651	.19708
Stddev	.00177	.00047	.00185	.0014	.00216	.01347	.00104	.0048	.00517
%RSD	1.0533	.25427	.90524	.03278	1.3908	2.7708	.13197	.34920	2.6210

#1	.16883	.18494	.20559	4.3228	.15650	.47666	.78371	1.3617	.19343
#2	.16634	.18427	.20297	4.3208	.15345	.49571	.78517	1.3684	.20074

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2966.7	54946.	6536.7
Stddev	1.2	145.	21.8
%RSD	.03970	.26446	.33291

#1	2965.9	55049.	6521.3
#2	2967.6	54844.	6552.0

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00334	49.061	-.00094	-.00168	-.00039	.00013	.97545	.02996	-.00045	-.00100	.00057
Stddev	.00008	.547	.00106	.00040	.00028	.00003	.00084	.00676	.00011	.00016	.00011
%RSD	2.4648	1.1143	112.74	23.632	72.208	24.839	.08638	22.579	24.501	16.399	20.182

#1	.00329	48.675	-.00170	-.00140	-.00019	.00011	.97486	.03474	-.00037	-.00088	.00065
#2	.00340	49.448	-.00019	-.00196	-.00059	.00016	.97605	.02517	-.00053	-.00111	.00049

Check ?	None	Chk Pass	None	None	None	None	Chk Pass	None	None	None	None
Value											
Range											

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00084	47.627	.33330	.00481	-.01859	-.00166	-.00056	247.13	.00143	.00205	.00358
Stddev	.00052	.021	.02744	.00173	.00823	.00008	.00025	2.83	.00008	.00060	.00076
%RSD	61.905	.04349	8.2343	35.997	44.287	4.8810	43.850	1.1445	5.8990	29.456	21.316

#1	.00047	47.612	.35270	.00604	-.01277	-.00172	-.00073	245.13	.00137	.00162	.00304
#2	.00120	47.642	.31389	.00359	-.02441	-.00160	-.00039	249.13	.00149	.00247	.00412

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.6994	-.00912	-.00050	-.03514	-.07520	-.00216	.00047	4.9701	-.01773	.00309	10.484
Stddev	.0634	.00463	.00242	.00521	.01115	.00003	.00013	.0284	.00055	.00003	.027
%RSD	1.3500	50.784	488.85	14.821	14.821	1.4412	28.041	.57222	3.1194	1.1271	.25327

#1	4.7442	-.01240	-.00221	-.03882	-.08308	-.00218	.00057	4.9902	-.01812	.00306	10.503
#2	4.6545	-.00585	.00122	-.03146	-.06732	-.00214	.00038	4.9500	-.01734	.00311	10.465

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	5.0000										
Range	-5.0000%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00260	.00069	.08158
Stddev	.00052	.00008	.00263
%RSD	20.135	11.201	3.2231

#1	.00297	.00075	.07972
#2	.00223	.00064	.08344

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3224.2	59941.	6502.6
Stddev	13.4	185.	33.5
%RSD	.41537	.30812	.51501

#1	3214.7	59810.	6526.3
#2	3233.7	60071.	6478.9

Sample Name: CCV-3305006 Acquired: 6/5/2015 17:12:43 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51399	.48024	.93164	.48266	.50185	.47279	-.00199	4.9564	.48016	.50031	.48581	.49272	2.3800
Stddev	.00625	.00238	.00820	.00587	.00604	.00545	.00188	.0597	.00066	.00208	.00030	.00261	.0260
%RSD	1.2154	.49614	.87982	1.2158	1.2036	1.1534	94.677	1.2044	.13744	.41503	.06128	.52915	1.0923
#1	.50957	.48192	.93744	.48681	.49758	.46893	-.00332	4.9141	.48063	.50178	.48602	.49088	2.3616
#2	.51841	.47855	.92585	.47851	.50612	.47665	-.00066	4.9986	.47970	.49884	.48560	.49457	2.3984

Check ?	Chk Pass	None	Chk Pass										
Value Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.958	.99113	20.012	.50242	.46636	5.4199	.50143	.95698	.99171	-.00092	.96003	.93997	4.8119
Stddev	.437	.00996	.031	.00096	.00050	.0186	.00143	.00625	.00227	.00491	.00119	.00517	.0880
%RSD	.87477	1.0051	.15464	.19143	.10682	.34278	.28584	.65269	.22855	532.29	.12430	.55004	1.8287
#1	49.649	.98408	19.990	.50310	.46671	5.4068	.50245	.95257	.99331	-.00440	.95919	.94363	4.7497
#2	50.267	.99817	20.034	.50174	.46601	5.4331	.50042	.96140	.99011	.00255	.96087	.93632	4.8742

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.298	.93073	.48120	-.00132	.49637	.96711	-.03107	.50464	.49007	.49752
Stddev	.188	.00244	.00523	.00116	.00101	.00045	.03549	.00686	.00450	.00385
%RSD	1.8287	.26269	1.0869	87.842	.20336	.04622	114.25	1.3599	.91758	.77302
#1	10.164	.93246	.47750	-.00215	.49709	.96742	-.00597	.50949	.49325	.49480
#2	10.431	.92900	.48490	-.00050	.49566	.96679	-.05616	.49979	.48689	.50024

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3285.5	61711.	6580.3
Stddev	1.4	226.	65.1
%RSD	.04376	.36692	.98903
#1	3284.5	61551.	6626.3
#2	3286.5	61871.	6534.2

Sample Name: CCB Acquired: 6/5/2015 17:15:13 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00052	-.00039	-.00122	.00031	-.00020	-.00005	-.00024	-.00139	-.00010	.00014	.00008	-.00041
Stddev	.00023	.00015	.00026	.00044	.00033	.00005	.00152	.00042	.00006	.00003	.00006	.00035
%RSD	43.283	38.775	21.043	144.05	168.82	106.41	630.98	30.229	60.545	20.010	81.782	84.100

#1	.00036	-.00028	-.00104	-.00001	.00004	-.00001	-.00131	-.00169	-.00006	.00012	.00003	-.00066
#2	.00068	-.00050	-.00140	.00062	-.00043	-.00009	.00083	-.00109	-.00015	.00015	.00012	-.00017

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00114	.17774	.00025	-.00088	.00006	.00028	.39701	-.00049	.00910	-.00062	.00596	.00092
Stddev	.00060	.00069	.00013	.00046	.00001	.00020	.00119	.00023	.00106	.00036	.00347	.00288
%RSD	53.132	.38881	50.114	51.834	9.0264	72.076	.29945	46.724	11.699	57.169	58.154	311.76

#1	-.00156	.17823	.00016	-.00056	.00006	.00042	.39785	-.00065	.00835	-.00037	.00351	.00296
#2	-.00071	.17725	.00034	-.00120	.00005	.00014	.39617	-.00033	.00985	-.00087	.00842	-.00111

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .00634	.01523	.03259	-.00072	.00007	.00150	-.00005	.00239	-.02249	-.00046	.00041	.00196
Stddev	.00194	.00184	.00393	.00030	.00000	.00054	.00025	.00062	.01266	.00079	.00013	.00192
%RSD	30.564	12.070	12.070	41.745	4.1610	36.178	504.73	25.892	56.289	173.81	32.573	98.247

#1	.00497	.01653	.03537	-.00051	.00007	.00188	.00013	.00195	-.01354	.00010	.00050	.00060
#2	.00771	.01393	.02981	-.00093	.00007	.00112	-.00023	.00282	-.03144	-.00102	.00031	.00332

Check ?	Chk Fail	Chk Pass										
High Limit	.00500											
Low Limit	-.00500											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3296.6	62888.	6554.4
Stddev	17.6	191.	29.4
%RSD	.53365	.30406	.44866

#1	3284.2	62753.	6575.2
#2	3309.1	63023.	6533.6

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01082	.10304	.01627	.09750	.00964	.00080	.10541	.21677	.00477	.01083	.01029	.01469
Stddev	.00016	.00067	.00093	.00061	.00047	.00000	.00278	.00643	.00011	.00020	.00006	.00000
%RSD	1.4955	.65302	5.7239	.63018	4.8734	.40563	2.6361	2.9650	2.3345	1.8480	.57175	.01118

#1	.01070	.10352	.01562	.09794	.00997	.00080	.10737	.21223	.00469	.01097	.01033	.01469
#2	.01093	.10257	.01693	.09707	.00931	.00079	.10344	.22132	.00485	.01069	.01025	.01469

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09790	3.3080	.01184	.21001	.01070	.01911	F 1.3770	.04157	2.7852	.00993	.00253	.00821
Stddev	.00121	.1166	.00286	.00015	.00011	.00013	.0110	.00000	.0166	.00077	.00043	.00103
%RSD	1.2381	3.5260	24.188	.07279	1.0605	.67252	.79950	.00240	.59510	7.7079	17.055	12.597

#1	.09704	3.2255	.00981	.21012	.01078	.01920	1.3692	.04157	2.7969	.01047	.00222	.00748
#2	.09875	3.3905	.01386	.20990	.01062	.01902	1.3848	.04157	2.7735	.00939	.00284	.00894

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass					
Value							1.0000					
Range							30.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .01963	.50086	1.0718	.09557	.01022	.01641	.00993	.01546	F .03365	.01032	.02321	.01870
Stddev	.00276	.00541	.0116	.00098	.00017	.00106	.00018	.00104	.01994	.00026	.00129	.00119
%RSD	14.076	1.0806	1.0806	1.0256	1.7001	6.4814	1.8581	6.7509	59.257	2.5223	5.5704	6.3414

#1	.01767	.49703	1.0636	.09626	.01009	.01716	.01006	.01619	.01955	.01051	.02230	.01954
#2	.02158	.50468	1.0800	.09487	.01034	.01566	.00980	.01472	.04775	.01014	.02412	.01786

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass						
Value	.01500								.06000			
Range	30.000%								-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3320.5	63120.	6616.9
Stddev	4.0	107.	31.2
%RSD	.11901	.16969	.47142

#1	3323.3	63195.	6639.0
#2	3317.7	63044.	6594.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00035	.00121	.00156	-.00101	.00002	-.00010	-.00014	.01064	-.00031
Stddev	.00014	.00006	.00357	.00037	.00038	.00002	.00228	.00018	.00010
%RSD	39.832	5.2007	229.80	37.008	1837.7	14.910	1606.0	1.7280	31.084

#1	.00045	.00125	-.00097	-.00127	.00029	-.00011	.00147	.01051	-.00024
#2	.00025	.00116	.00408	-.00074	-.00025	-.00009	-.00175	.01077	-.00038

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00013	.00057	-.00002	.03282	.19132	.00294	-.00306	.00041	-.00008
Stddev	.00028	.00016	.00031	.00252	.01489	.00090	.00047	.00006	.00064
%RSD	220.09	28.504	1670.8	7.6878	7.7826	30.727	15.459	14.505	756.96

#1	.00033	.00068	-.00024	.03460	.20184	.00230	-.00340	.00046	-.00054
#2	-.00007	.00045	.00020	.03103	.18079	.00358	-.00273	.00037	.00037

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.28610	-.00010	.00034	.00024	.00789	.00004	W .00819	.02095	.04483
Stddev	.00711	.00040	.00274	.00207	.00168	.00166	.00337	.00601	.01287
%RSD	2.4860	395.78	813.85	875.08	21.310	4230.7	41.184	28.710	28.710

#1	.29113	-.00039	-.00160	-.00123	.00670	-.00113	.00581	.02520	.05393
#2	.28108	.00018	.00227	.00170	.00907	.00121	.01058	.01670	.03573

Check ?	Chk Pass	Chk Warn	Chk Pass	None					
High Limit							.00750		
Low Limit							-.00750		

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00018	-.00002	.00325	-.00003	.00179	-.03390	-.00004	.00358	.00031
Stddev	.00009	.00007	.00051	.00005	.00245	.00034	.00006	.00083	.00039
%RSD	48.390	403.21	15.744	207.06	136.82	.98840	150.76	23.156	125.45

#1	-.00024	-.00007	.00361	-.00006	.00353	-.03366	.00000	.00299	.00004
#2	-.00012	.00003	.00289	.00001	.00006	-.03413	-.00008	.00416	.00059

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3315.7	63232.	6603.1
Stddev	3.5	311.	4.6
%RSD	.10636	.49125	.07003

#1	3313.2	63013.	6599.8
#2	3318.2	63452.	6606.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05243	1.8680	.95897	1.0042	2.0508	.04790	1.9832	49.287	.09845
Stddev	.00066	.0043	.00144	.0039	.0474	.00093	.0111	1.047	.00090
%RSD	1.2555	.22731	.14969	.38862	2.3137	1.9398	.56069	2.1245	.91665

#1	.05289	1.8650	.95795	1.0015	2.0173	.04724	1.9753	48.547	.09782
#2	.05196	1.8710	.95998	1.0070	2.0844	.04856	1.9911	50.028	.09909

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49624	F .19070	.25101	.96194	51.370	1.0124	50.653	.51198	.98702
Stddev	.00101	.00011	.00029	.01375	1.018	.0186	.129	.00154	.00149
%RSD	.20417	.05848	.11639	1.4299	1.9822	1.8371	.25500	.30132	.15099

#1	.49553	.19078	.25080	.95222	50.650	.99928	50.744	.51307	.98807
#2	.49696	.19062	.25122	.97167	52.090	1.0256	50.561	.51089	.98597

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	54.282	.49471	9.9712	.50510	1.9201	.50762	1.9401	9.9275	21.245
Stddev	1.268	.00027	.0420	.00147	.0032	.00224	.0050	.1924	.412
%RSD	2.3349	.05414	.42148	.29196	.16911	.44139	.25872	1.9383	1.9383

#1	53.386	.49452	9.9415	.50406	1.9178	.50604	1.9365	9.7914	20.954
#2	55.179	.49490	10.001	.50614	1.9224	.50921	1.9436	10.064	21.536

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9036	.98086	1.0125	1.0193	1.9178	2.1374	.51978	.48910	.53049
Stddev	.0060	.01815	.0002	.0018	.0042	.0135	.00111	.00284	.01305
%RSD	.31375	1.8500	.02086	.17215	.21682	.62942	.21402	.57995	2.4596

#1	1.9079	.96803	1.0126	1.0206	1.9208	2.1470	.52056	.49110	.52126
#2	1.8994	.99370	1.0123	1.0181	1.9149	2.1279	.51899	.48709	.53972

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3187.6	59740.	6482.9
Stddev	.7	270.	64.8
%RSD	.02341	.45158	.99962

#1	3187.1	59549.	6528.7
#2	3188.1	59931.	6437.1

Sample Name: 280-70056-B-1-B Acquired: 6/5/2015 17:25:03 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280182 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00104	.34033	.00993	5.1008	.90302	-.00020	-.00414	248.28	.00024
Stddev	.00015	.00158	.00193	.0002	.00800	.00014	.00277	2.00	.00000
%RSD	14.824	.46309	19.432	.00332	.88556	69.291	66.731	.80520	.86663

#1	.00093	.34145	.00857	5.1007	.89736	-.00010	-.00610	246.87	.00024
#2	.00115	.33922	.01130	5.1009	.90867	-.00029	-.00219	249.70	.00024

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01689	.00905	.00323	1.0745	W 389.70	.04479	463.97	1.6850	-.00167
Stddev	.00021	.00024	.00003	.0085	2.32	.00023	.72	.0025	.00034
%RSD	1.2384	2.6314	1.0060	.78716	.59652	.51763	.15559	.14609	20.255

#1	.01703	.00888	.00321	1.0685	388.06	.04495	464.48	1.6867	-.00191
#2	.01674	.00922	.00325	1.0805	391.34	.04463	463.46	1.6832	-.00143

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 3079.5	.08569	W 2.9005	.00973	65.776	.00754	.00525	11.019	23.580
Stddev	27.8	.00067	.0343	.00022	.161	.00001	.00564	.221	.473
%RSD	.90399	.78660	1.1812	2.2564	.24416	.18819	107.45	2.0044	2.0044

#1	3059.8	.08522	2.8763	.00988	65.662	.00753	.00923	10.863	23.246
#2	3099.1	.08617	2.9247	.00957	65.890	.00755	.00126	11.175	23.914

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass					
High Limit	500.00		2.0000						
Low Limit	11.000		-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00037	2.8736	-.00062	.01902	W -.01028	W -.06107	.01223	.00633	.00523
Stddev	.00012	.0283	.00024	.00057	.00084	.02466	.00003	.00087	.00077
%RSD	31.739	.98575	37.712	2.9919	8.1279	40.374	.26544	13.823	14.775

#1	.00028	2.8536	-.00046	.01862	-.01087	-.07850	.01221	.00695	.00468
#2	.00045	2.8937	-.00079	.01942	-.00969	-.04363	.01226	.00571	.00577

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000	45.000			
Low Limit					-.01000	-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2705.9	48785.	6306.3
Stddev	2.8	93.	33.7
%RSD	.10188	.19160	.53395

#1	2703.9	48719.	6282.5
#2	2707.8	48852.	6330.1

Sample Name: 280-70056-B-1-B SD@5 Acquired: 6/5/2015 17:28:56 Type: Unk

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment: 280182 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.06385	.00307	.97239	.15355	-.00014	-.00422	43.459	.00023
Stddev	.00025	.00070	.00472	.01071	.00097	.00010	.00005	.306	.00004
%RSD	326.94	1.1020	154.02	1.1010	.63465	72.834	1.2642	.70358	18.703

#1	.00025	.06335	.00640	.96482	.15286	-.00007	-.00425	43.243	.00026
#2	-.00010	.06434	-.00027	.97996	.15424	-.00022	-.00418	43.676	.00020

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00268	.00213	.00110	.19550	65.712	.00882	78.904	.29299	-.00154
Stddev	.00021	.00001	.00010	.00089	.576	.00076	.796	.00237	.00009
%RSD	7.6520	.28607	9.2132	.45713	.87695	8.6609	1.0088	.80960	5.7193

#1	.00253	.00212	.00117	.19487	65.304	.00828	78.341	.29131	-.00160
#2	.00282	.00213	.00102	.19614	66.119	.00936	79.466	.29467	-.00148

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 517.13	.01644	.50403	.00540	11.306	-.00012	.00555	1.8328	3.9223
Stddev	3.53	.00039	.00162	.00139	.126	.00165	.00178	.0041	.0088
%RSD	.68312	2.3736	.32150	25.722	1.1119	1414.9	32.007	.22428	.22428

#1	514.63	.01616	.50288	.00638	11.217	-.00128	.00429	1.8299	3.9161
#2	519.63	.01671	.50517	.00442	11.395	.00105	.00680	1.8358	3.9285

Check ?	Chk Warn	Chk Pass							
High Limit	500.00								
Low Limit	11.000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00330	.48383	-.00176	.00265	-.00311	-.02280	-.00038	.00258	.00171
Stddev	.00163	.00464	.00291	.00021	.00020	.00092	.00023	.00101	.00333
%RSD	49.332	.95851	165.44	7.7873	6.5460	4.0381	61.224	39.068	194.78

#1	.00445	.48055	.00030	.00251	-.00296	-.02215	-.00022	.00187	-.00064
#2	.00215	.48711	-.00382	.00280	-.00325	-.02345	-.00055	.00330	.00406

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3053.4	56395.	6467.4
Stddev	3.3	5.	5.4
%RSD	.10644	.00810	.08352

#1	3055.7	56392.	6471.2
#2	3051.2	56398.	6463.6

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05344	1.9725	3.7114	.89388	5.2527	2.5824	.04065	F 1.7058	258.82
Stddev	.00015	.0044	.0286	.00206	.0186	.0192	.00035	.0051	1.32
%RSD	.27748	.22142	.76967	.23074	.35390	.74325	.85231	.30074	.51174

#1	.05333	1.9756	3.6912	.89242	5.2658	2.5689	.04041	1.7094	257.88
#2	.05354	1.9694	3.7316	.89534	5.2395	2.5960	.04090	1.7022	259.75

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit								.10000	
Low Limit								-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09025	.41376	W .14750	.22789	1.7812	W 384.37	.95929	444.70	1.9029
Stddev	.00069	.00045	.00051	.00073	.0131	2.51	.01112	.07	.0011
%RSD	.75962	.10969	.34608	.32151	.73616	.65374	1.1589	.01574	.05692

#1	.09074	.41408	.14786	.22737	1.7719	382.59	.95143	444.65	1.9036
#2	.08977	.41344	.14714	.22841	1.7904	386.14	.96715	444.74	1.9021

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit			.10000			100.00			
Low Limit			-.01000			-.50000			

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.82895	W 2730.5	.46999	W 11.994	.39455	58.898	.45628	1.7878	16.417
Stddev	.00096	24.2	.00127	.066	.00121	.302	.00516	.0180	.155
%RSD	.11611	.88776	.26920	.54809	.30598	.51196	1.1298	1.0046	.94661

#1	.82963	2713.3	.47089	12.040	.39540	59.111	.45992	1.8005	16.307
#2	.82826	2747.6	.46910	11.947	.39370	58.684	.45263	1.7751	16.527

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass				
High Limit		500.00		2.0000					
Low Limit		11.000		-1.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	35.132	1.5068	3.3537	.89243	.92074	1.3264	1.7408	.47634	.43318
Stddev	.333	.0154	.0383	.00135	.00192	.0151	.0190	.00009	.00102
%RSD	.94661	1.0241	1.1422	.15153	.20901	1.1381	1.0940	.01994	.23445

#1	34.897	1.5178	3.3266	.89338	.92210	1.3370	1.7274	.47627	.43390
#2	35.368	1.4959	3.3808	.89147	.91938	1.3157	1.7543	.47640	.43246

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.44644
Stddev	.00186
%RSD	.41745

#1	.44512
#2	.44775

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-70056-B-1-C MS Acquired: 6/5/2015 17:31:40 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 280182 6010B

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2797.2	50494.	6368.1
Stddev	2.5	43.	31.6
%RSD	.09033	.08437	.49684
#1	2795.4	50464.	6345.7
#2	2799.0	50524.	6390.4

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05996	2.1898	4.1419	1.0082	5.8591	2.9595	.04614	F 1.9059	292.19
Stddev	.00015	.0009	.0295	.0047	.0062	.0256	.00042	.0054	1.16
%RSD	.25064	.04191	.71105	.47081	.10653	.86475	.91366	.28371	.39557

#1	.06006	2.1904	4.1628	1.0116	5.8635	2.9776	.04644	1.9098	293.01
#2	.05985	2.1891	4.1211	1.0049	5.8546	2.9414	.04584	1.9021	291.37

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit								.10000	
Low Limit								-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10191	.46952	W .16412	.25848	2.0102	W 436.88	1.1007	W 505.33	2.1572
Stddev	.00023	.00079	.00069	.00266	.0062	3.09	.0023	1.09	.0033
%RSD	.22414	.16807	.41996	1.0294	.30961	.70702	.21286	.21538	.15346

#1	.10208	.47007	.16461	.26036	2.0146	439.06	1.1023	504.56	2.1548
#2	.10175	.46896	.16364	.25659	2.0058	434.70	1.0990	506.10	2.1595

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass
High Limit			.10000			100.00		500.00	
Low Limit			-.01000			-.50000		-.10000	

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.93374	W 3110.1	.53121	W 13.482	.44344	65.261	.50813	1.9775	18.523
Stddev	.00154	25.0	.00098	.001	.00071	.208	.00242	.0108	.128
%RSD	.16536	.80520	.18499	.00420	.16010	.31870	.47543	.54699	.69151

#1	.93483	3127.8	.53052	13.483	.44294	65.408	.50984	1.9699	18.614
#2	.93265	3092.3	.53191	13.482	.44394	65.114	.50642	1.9852	18.433

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass				
High Limit		500.00		2.0000					
Low Limit		11.000		-1.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	39.639	1.6776	3.8237	1.0149	1.0413	1.4611	1.9960	.54455	.48955
Stddev	.274	.0063	.0271	.0008	.0030	.0081	.0033	.00061	.00418
%RSD	.69151	.37361	.70971	.08209	.28647	.55685	.16337	.11253	.85290

#1	39.833	1.6731	3.8429	1.0143	1.0392	1.4553	1.9937	.54412	.48659
#2	39.446	1.6820	3.8045	1.0155	1.0434	1.4668	1.9983	.54498	.49250

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.51103
Stddev	.00104
%RSD	.20331

#1	.51177
#2	.51030

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-70056-B-1-D MSD Acquired: 6/5/2015 17:35:22 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 280182 6010B

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2729.1	49415.	6324.4
Stddev	3.2	216.	68.0
%RSD	.11786	.43701	1.0752
#1	2726.9	49568.	6276.3
#2	2731.4	49263.	6372.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00053	.14507	.00595	.36848	.02879	-.00014	-.00499	117.86	.00016
Stddev	.00026	.00056	.00107	.00093	.00026	.00001	.00231	1.57	.00008
%RSD	48.014	.38297	18.062	.25240	.89874	5.6440	46.315	1.3288	48.334

#1	.00071	.14468	.00519	.36782	.02897	-.00014	-.00335	116.75	.00022
#2	.00035	.14546	.00671	.36914	.02861	-.00015	-.00662	118.97	.00011

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00355	.00381	.00173	.93700	W 213.73	.01845	75.307	.97508	-.00180
Stddev	.00018	.00000	.00025	.00336	2.51	.00001	.160	.00019	.00010
%RSD	5.0832	.07483	14.394	.35827	1.1738	.04617	.21234	.01911	5.4555

#1	.00343	.00381	.00191	.93937	211.96	.01844	75.194	.97521	-.00187
#2	.00368	.00381	.00155	.93462	215.51	.01845	75.420	.97495	-.00173

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	104.86	.03147	W 9.0234	.00982	9.1196	.00133	.01159	9.1483	19.577
Stddev	2.08	.00007	.0633	.00014	.0507	.00199	.00099	.0285	.061
%RSD	1.9795	.21859	.70111	1.4504	.55591	149.35	8.5052	.31148	.31148

#1	103.39	.03152	9.0681	.00972	9.1555	.00274	.01229	9.1685	19.620
#2	106.33	.03142	8.9787	.00992	9.0838	-.00007	.01089	9.1282	19.534

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00110	.34487	-.00046	.00860	-.00644	-.03729	.00234	.00935	.00248
Stddev	.00063	.00442	.00296	.00013	.00117	.01842	.00031	.00014	.00204
%RSD	57.320	1.2819	641.65	1.4827	18.238	49.405	13.369	1.5262	82.275

#1	.00155	.34175	.00163	.00869	-.00727	-.02427	.00257	.00925	.00393
#2	.00066	.34800	-.00255	.00851	-.00561	-.05032	.00212	.00945	.00104

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3145.7	57793.	6560.0
Stddev	6.2	61.	24.0
%RSD	.19823	.10629	.36612

#1	3150.1	57836.	6577.0
#2	3141.3	57749.	6543.0

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00276	49.328	-.00261	.00605	-.00015	.00012	W .94800	.03062	-.00025	-.00091	.00081
Stddev	.00057	.175	.00555	.00085	.00000	.00009	.00161	.00160	.00024	.00003	.00005
%RSD	20.569	.35394	212.72	14.011	1.6798	70.900	.16956	5.2227	95.845	2.9166	5.9630

#1	.00236	49.204	.00132	.00665	-.00015	.00006	.94914	.02949	-.00041	-.00093	.00084
#2	.00317	49.451	-.00654	.00545	-.00015	.00018	.94687	.03175	-.00008	-.00089	.00078

Check ?	None	Chk Pass	None	None	None	None	Chk Warn	None	None	None	None
Value							1.0000				
Range							-5.0000%				

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00057	47.810	.76726	.00255	-.01830	-.00161	-.00062	246.02	.00105	.00401	.00216
Stddev	.00033	.153	.01670	.00205	.00887	.00004	.00012	1.35	.00031	.00077	.00058
%RSD	58.258	.32024	2.1762	80.392	48.458	2.4467	18.745	.55055	29.262	19.188	26.866

#1	-.00034	47.918	.75546	.00110	-.01203	-.00158	-.00070	245.06	.00083	.00455	.00257
#2	-.00080	47.702	.77907	.00400	-.02457	-.00164	-.00054	246.98	.00126	.00347	.00175

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.5148	-.01003	.00767	.00008	.00017	-.00164	.00039	4.9880	-.01683	.00258	10.483
Stddev	.0498	.00017	.00023	.02173	.04649	.00009	.00009	.0009	.00052	.00013	.021
%RSD	1.1040	1.7069	2.9416	27782.	27782.	5.4583	24.021	.01724	3.0966	4.9411	.20515

#1	4.5500	-.01015	.00783	-.01528	-.03271	-.00170	.00032	4.9874	-.01720	.00267	10.467
#2	4.4795	-.00991	.00751	.01544	.03304	-.00158	.00045	4.9886	-.01646	.00249	10.498

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	5.0000										
Range	-5.0000%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00258	.00124	.07696
Stddev	.00069	.00066	.00055
%RSD	26.913	53.136	.71411

#1	.00307	.00078	.07734
#2	.00209	.00171	.07657

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3251.3	59665.	6531.7
Stddev	3.6	490.	28.5
%RSD	.11221	.82086	.43664

#1	3248.8	60011.	6551.9
#2	3253.9	59318.	6511.5

Sample Name: CCV-3305006 Acquired: 6/5/2015 17:44:19 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52423	.48031	.91952	.48667	.50526	.46791	-.00308	4.9518	.47592	.50582	.47700	.48729	2.3495
Stddev	.00419	.00138	.00992	.00533	.00794	.00682	.00145	.0760	.00173	.00556	.00502	.00055	.0226
%RSD	.79988	.28812	1.0793	1.0945	1.5712	1.4568	47.253	1.5342	.36294	1.0982	1.0533	.11232	.96187

#1	.52720	.47933	.91251	.48290	.49964	.46309	-.00205	4.8981	.47470	.50189	.47345	.48767	2.3335
#2	.52127	.48129	.92654	.49043	.51087	.47273	-.00411	5.0055	.47714	.50975	.48055	.48690	2.3655

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.221	.97901	20.448	.51307	.46146	5.4411	.50664	.95266	.99754	.01002	.94738	.91896	4.6875
Stddev	.849	.00819	.102	.00143	.00430	.0558	.00653	.00712	.00762	.00266	.01927	.01604	.0816
%RSD	1.6902	.83614	.49807	.27783	.93146	1.0258	1.2882	.74775	.76404	26.550	2.0337	1.7456	1.7408

#1	49.621	.97322	20.520	.51408	.45842	5.4016	.50202	.94762	.99215	.01190	.93376	.90762	4.6298
#2	50.821	.98480	20.376	.51206	.46450	5.4806	.51125	.95770	1.0029	.00814	.96100	.93030	4.7452

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.031	.91779	.47573	.00014	.50481	.94846	-.01621	.51928	.50136	.49205
Stddev	.175	.01163	.00735	.00043	.00102	.01080	.01196	.00641	.00243	.00912
%RSD	1.7408	1.2668	1.5454	307.83	.20223	1.1383	73.752	1.2347	.48520	1.8542

#1	9.9078	.90957	.47054	-.00016	.50553	.94082	-.02467	.52381	.50308	.48560
#2	10.155	.92601	.48093	.00044	.50409	.95609	-.00776	.51474	.49964	.49850

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3253.9	59698.	6383.2
Stddev	7.3	262.	114.9
%RSD	.22422	.43969	1.8007

#1	3248.8	59512.	6464.5
#2	3259.1	59884.	6301.9

Sample Name: CCB Acquired: 6/5/2015 17:46:46 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00049	.00066	.00169	.00439	-.00053	-.00011	-.00244	-.00396	-.00022	.00008	.00018	-.00107
Stddev	.00043	.00024	.00539	.00024	.00015	.00016	.00295	.00480	.00047	.00027	.00001	.00044
%RSD	88.772	36.865	318.19	5.3994	27.570	142.15	120.49	121.12	207.22	335.45	3.0717	40.811

#1	.00079	.00049	-.00212	.00456	-.00043	.00000	-.00453	-.00057	.00010	.00027	.00017	-.00138
#2	.00018	.00084	.00551	.00423	-.00064	-.00023	-.00036	-.00735	-.00055	-.00011	.00018	-.00076

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00216	.39386	.00286	.00081	.00001	.00024	.43413	-.00024	.00047	.00028	.00549	-.00105
Stddev	.00293	.06033	.00035	.00048	.00006	.00008	.00250	.00023	.00227	.00036	.00209	.00023
%RSD	135.96	15.319	12.347	59.505	397.32	31.825	.57657	96.465	479.29	126.05	38.141	21.622

#1	-.00008	.43652	.00311	.00115	-.00003	.00019	.43236	-.00008	-.00113	.00054	.00401	-.00121
#2	-.00423	.35120	.00261	.00047	.00006	.00029	.43590	-.00041	.00208	.00003	.00697	-.00089

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F.00930	.00090	.00194	-.00160	.00003	.00393	-.00006	.00138	-.00933	-.00006	.00040	.00072
Stddev	.00181	.00699	.01495	.00120	.00001	.00233	.00012	.00058	.03118	.00024	.00074	.00139
%RSD	19.467	772.65	772.65	75.047	41.368	59.110	192.49	42.292	334.08	383.66	187.56	192.11

#1	.01058	-.00404	-.00864	-.00246	.00002	.00229	-.00014	.00179	.01272	-.00023	-.00013	-.00026
#2	.00802	.00585	.01251	-.00075	.00003	.00558	.00002	.00096	-.03138	.00011	.00092	.00171

Check ?	Chk Fail	Chk Pass										
High Limit	.00500											
Low Limit	-.00500											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3241.7	59756.	6323.2
Stddev	3.0	174.	35.4
%RSD	.09309	.29193	.55944

#1	3239.6	59880.	6348.2
#2	3243.8	59633.	6298.2

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01087	.10284	.01360	.10085	.01002	.00084	.10373	.21285	.00480	.01045	.01031	.01415
Stddev	.00003	.00114	.00138	.00051	.00004	.00002	.00100	.00001	.00005	.00024	.00025	.00122
%RSD	.25417	1.1122	10.156	.50504	.38377	2.1280	.96755	.00425	1.0206	2.2516	2.4397	8.6304

#1	.01085	.10203	.01457	.10121	.00999	.00086	.10444	.21286	.00483	.01062	.01048	.01501
#2	.01089	.10365	.01262	.10049	.01005	.00083	.10302	.21284	.00476	.01028	.01013	.01329

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09768	3.4202	F .01381	.22267	.01103	.01834	F 1.4149	.04217	2.7926	.01009	.01144	.00786
Stddev	.00007	.1156	.00021	.00158	.00005	.00036	.0087	.00100	.0365	.00176	.00267	.00103
%RSD	.07031	3.3791	1.5066	.70949	.40921	1.9653	.61792	2.3695	1.3055	17.409	23.350	13.087

#1	.09764	3.5020	.01367	.22156	.01100	.01860	1.4211	.04288	2.8184	.00885	.01333	.00858
#2	.09773	3.3385	.01396	.22379	.01106	.01809	1.4088	.04147	2.7668	.01133	.00955	.00713

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value			.01000				1.0000					
Range			30.000%				30.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .02306	4.8402	1.0358	.09317	.00981	.01881	.00998	.01870	.05792	.01056	.02333	.01887
Stddev	.00059	.00664	.0142	.00170	.00006	.00085	.00027	.00155	.01265	.00026	.00003	.00005
%RSD	2.5741	1.3723	1.3723	1.8295	.62850	4.5244	2.7108	8.3017	21.842	2.4191	.14299	.27813

#1	.02348	.47932	1.0257	.09438	.00986	.01942	.00979	.01980	.06687	.01038	.02336	.01884
#2	.02264	.48872	1.0459	.09197	.00977	.01821	.01017	.01760	.04898	.01074	.02331	.01891

Check ?	Chk Fail	Chk Pass										
Value	.01500											
Range	30.000%											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3317.4	60974.	6436.3
Stddev	20.0	234.	51.6
%RSD	.60313	.38443	.80221

#1	3303.2	61140.	6399.8
#2	3331.5	60809.	6472.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00054	.01337	.00207	.07064	.24572	-.00013	-.00518	155.73	-.00018
Stddev	.00060	.00083	.00386	.00100	.00265	.00005	.00110	1.39	.00015
%RSD	111.51	6.1775	186.23	1.4184	1.0794	38.605	21.231	.89543	84.636

#1	.00011	.01278	.00480	.07135	.24385	-.00009	-.00440	154.74	-.00007
#2	.00097	.01395	-.00066	.06993	.24760	-.00016	-.00595	156.72	-.00029

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	.00118	.00045	.23974	1.0105	.01532	50.725	.29057	-.00214
Stddev	.00034	.00006	.00029	.00667	.0357	.00033	.011	.00024	.00011
%RSD	489.42	4.7142	63.831	2.7837	3.5366	2.1568	.02253	.08140	5.3461

#1	.00017	.00122	.00065	.23502	.98524	.01509	50.716	.29041	-.00222
#2	-.00031	.00115	.00025	.24446	1.0358	.01555	50.733	.29074	-.00206

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	261.05	.00312	.02577	.00828	27.755	.00526	.01129	8.9183	19.085
Stddev	2.51	.00014	.00095	.00173	.586	.00013	.00174	.1819	.389
%RSD	.96317	4.6263	3.6757	20.931	2.1115	2.5579	15.393	2.0391	2.0391

#1	259.28	.00302	.02644	.00951	28.170	.00517	.01251	8.7897	18.810
#2	262.83	.00322	.02510	.00706	27.341	.00536	.01006	9.0469	19.360

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00111	.84225	.00221	-.00029	-.00712	-.01460	-.00038	.00146	.00195
Stddev	.00083	.00815	.00104	.00011	.00172	.02286	.00086	.00069	.00005
%RSD	74.672	.96790	46.885	37.497	24.200	156.59	225.86	47.504	2.4480

#1	.00052	.83649	.00148	-.00036	-.00591	.00157	.00023	.00195	.00192
#2	.00169	.84802	.00294	-.00021	-.00834	-.03077	-.00099	.00097	.00198

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3125.1	56717.	6420.4
Stddev	13.2	108.	39.8
%RSD	.42258	.19017	.61960

#1	3134.4	56641.	6448.5
#2	3115.7	56793.	6392.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0023	.01741	-0.00134	.08317	.40371	-0.0017	-0.00374	131.52	.00002
Stddev	.00074	.00066	.00097	.00184	.00110	.00009	.00003	.13	.00003
%RSD	325.63	3.7665	72.457	2.2068	.27213	52.707	.72663	.09837	149.75

#1	-0.0075	.01695	-0.00203	.08447	.40293	-0.00023	-0.00375	131.43	.00000
#2	.00030	.01788	-0.00066	.08188	.40449	-0.00011	-0.00372	131.61	.00004

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0017	.00277	.00046	.74435	2.4311	.02476	47.041	.17066	.00139
Stddev	.00014	.00016	.00057	.00079	.0366	.00038	.062	.00060	.00010
%RSD	85.254	5.6139	124.80	.10635	1.5054	1.5264	.13111	.35429	6.9543

#1	-0.0027	.00288	.00086	.74379	2.4052	.02503	46.998	.17108	.00132
#2	-0.0007	.00266	.00005	.74491	2.4569	.02449	47.085	.17023	.00145

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	125.46	.00046	.03009	.00895	3.4523	.00220	.00860	7.1620	15.327
Stddev	.44	.00027	.00002	.00095	.0819	.00140	.00038	.0913	.195
%RSD	.34768	59.185	.06353	10.577	2.3721	63.532	4.3937	1.2745	1.2745

#1	125.15	.00065	.03007	.00828	3.5102	.00319	.00833	7.0975	15.189
#2	125.77	.00027	.03010	.00962	3.3944	.00121	.00886	7.2265	15.465

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00023	1.0289	.00120	-0.00011	-0.00686	-0.02872	-0.00132	.00402	.00045
Stddev	.00002	.0039	.00054	.00022	.00043	.00455	.00058	.00005	.00112
%RSD	9.5231	.37701	45.230	208.96	6.3140	15.831	43.583	1.2417	248.94

#1	.00024	1.0262	.00158	.00005	-0.00656	-0.03194	-0.00091	.00399	.00124
#2	.00021	1.0317	.00081	-0.00026	-0.00717	-0.02551	-0.00173	.00406	-0.00034

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3159.7	57389.	6381.9
Stddev	24.5	56.	22.5
%RSD	.77400	.09745	.35184

#1	3142.4	57350.	6366.0
#2	3177.0	57429.	6397.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00063	.00391	.00239	.08122	.64812	-.00017	-.00364	134.08	-.00018
Stddev	.00066	.00070	.00424	.00080	.00318	.00002	.00264	.41	.00010
%RSD	104.06	17.888	177.39	.98246	.49122	10.730	72.392	.30612	56.682

#1	.00109	.00342	-.00061	.08179	.64587	-.00019	-.00551	133.79	-.00011
#2	.00017	.00441	.00539	.08066	.65037	-.00016	-.00178	134.37	-.00025

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	.00106	.00036	.44816	2.6988	.02406	45.718	.28583	-.00184
Stddev	.00030	.00031	.00059	.00422	.0178	.00019	.096	.00042	.00045
%RSD	446.15	29.238	162.74	.94101	.65843	.79432	.21102	.14563	24.410

#1	-.00028	.00084	-.00005	.44518	2.6863	.02393	45.787	.28613	-.00152
#2	.00015	.00128	.00078	.45115	2.7114	.02420	45.650	.28554	-.00216

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	118.19	.00094	.01228	.00955	4.6567	.00354	.00592	7.3979	15.831
Stddev	2.84	.00004	.00355	.00173	.0293	.00256	.00086	.0719	.154
%RSD	2.4052	4.6039	28.873	18.149	.62972	72.480	14.562	.97204	.97204

#1	120.20	.00091	.00977	.01077	4.6360	.00173	.00653	7.3470	15.723
#2	116.18	.00097	.01479	.00832	4.6774	.00535	.00531	7.4487	15.940

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00072	1.0402	.00228	-.00073	-.00588	-.04589	-.00183	.00097	.00039
Stddev	.00044	.0015	.00094	.00017	.00013	.01166	.00064	.00085	.00033
%RSD	61.297	.14329	41.286	22.569	2.2943	25.414	35.203	87.722	85.028

#1	.00041	1.0391	.00161	-.00062	-.00578	-.03764	-.00137	.00037	.00016
#2	.00104	1.0412	.00294	-.00085	-.00598	-.05414	-.00228	.00158	.00062

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3176.7	58184.	6395.7
Stddev	11.0	310.	19.8
%RSD	.34703	.53328	.30999

#1	3184.5	57965.	6381.7
#2	3168.9	58403.	6409.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0030	.50497	.00031	.09837	.51733	-0.0009	-0.00355	155.92	-0.0024
Stddev	.00074	.00278	.00129	.00135	.00732	.00002	.00020	2.89	.00022
%RSD	245.75	.55080	411.08	1.3749	1.4151	16.352	5.6912	1.8514	90.351

#1	.00022	.50694	-.00060	.09933	.51215	-.00008	-.00369	153.88	-.00009
#2	-.00083	.50301	.00123	.09741	.52250	-.00010	-.00340	157.96	-.00040

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00229	.00204	.00152	.38543	1.8543	.01823	39.201	.73242	-.00159
Stddev	.00020	.00011	.00042	.00131	.0926	.00054	.004	.00133	.00000
%RSD	8.7237	5.1817	27.453	.34022	4.9953	2.9670	.01055	.18187	.22521

#1	.00243	.00212	.00181	.38636	1.7888	.01784	39.198	.73148	-.00159
#2	.00215	.00197	.00122	.38450	1.9198	.01861	39.204	.73336	-.00159

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	90.511	.00459	.05633	.00978	8.0291	.00499	.01152	10.401	22.257
Stddev	.356	.00042	.00007	.00043	.0464	.00381	.00469	.002	.004
%RSD	.39361	9.0979	.11683	4.3946	.57787	76.361	40.717	.01779	.01779

#1	90.259	.00430	.05629	.00947	8.0619	.00768	.01484	10.399	22.254
#2	90.763	.00489	.05638	.01008	7.9963	.00229	.00821	10.402	22.260

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00171	.79086	.00095	.01128	-.00749	-.02099	.00167	.00518	.00308
Stddev	.00034	.01427	.00004	.00203	.00164	.02093	.00067	.00019	.00192
%RSD	19.662	1.8040	4.0122	18.035	21.871	99.691	40.220	3.6246	62.271

#1	.00195	.78077	.00097	.01272	-.00865	-.03579	.00119	.00532	.00172
#2	.00147	.80095	.00092	.00984	-.00634	-.00620	.00214	.00505	.00444

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3153.1	57322.	6365.4
Stddev	8.4	237.	124.5
%RSD	.26737	.41345	1.9565

#1	3147.2	57490.	6453.4
#2	3159.1	57155.	6277.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0009	.00722	-0.00125	.00533	-0.00004	-0.00007	.00046	.01047	-0.00042
Stddev	.00111	.00001	.00054	.00011	.00021	.00011	.00118	.00553	.00005
%RSD	1287.2	.08268	43.392	2.0572	472.10	157.87	256.45	52.785	10.956

#1	-0.00087	.00722	-0.00087	.00525	.00010	.00001	-0.00037	.01438	-0.00046
#2	.00070	.00721	-0.00164	.00540	-0.00019	-0.00015	.00129	.00656	-0.00039

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00038	.00066	-0.00055	.00787	.32417	.00058	-0.00855	.00009	-0.00005
Stddev	.00014	.00005	.00058	.00221	.05705	.00001	.00757	.00001	.00001
%RSD	35.440	7.7942	105.68	28.082	17.600	1.0293	88.575	12.474	10.878

#1	.00048	.00063	-0.00096	.00630	.28383	.00058	-0.00320	.00008	-0.00005
#2	.00029	.00070	-0.00014	.00943	.36451	.00057	-0.01391	.00010	-0.00006

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.41406	-0.00007	-0.00069	.00127	.01626	.00091	.00566	.00006	.00014
Stddev	.00404	.00031	.00040	.00099	.00130	.00179	.00032	.02095	.04482
%RSD	.97648	469.98	58.217	77.779	8.0058	197.09	5.5665	32361.	32361.

#1	.41120	-0.00028	-0.00041	.00057	.01719	-0.00036	.00588	-.01475	-.03156
#2	.41692	.00015	-0.00098	.00197	.01534	.00218	.00544	.01488	.03183

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00084	.00009	.00221	-0.00018	.00183	-0.03614	.00012	.00166	.00015
Stddev	.00041	.00014	.00197	.00024	.00110	.00191	.00069	.00124	.00464
%RSD	49.405	154.02	89.174	132.09	60.223	5.2816	579.43	74.737	3058.0

#1	-0.00055	.00019	.00361	-0.00001	.00261	-.03479	-0.00037	.00254	.00343
#2	-0.00113	-0.00001	.00082	-0.00035	.00105	-0.03749	.00060	.00078	-0.00313

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3340.6	61185.	6447.8
Stddev	6.6	11.	38.0
%RSD	.19619	.01751	.58954

#1	3345.2	61193.	6474.7
#2	3336.0	61178.	6420.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00087	.01257	.00263	.91948	.09074	-.00023	-.00541	162.29	-.00026
Stddev	.00047	.00012	.00356	.00277	.00003	.00009	.00013	.89	.00011
%RSD	53.257	.98096	135.43	.30170	.03238	36.899	2.3422	.54722	41.196

#1	.00054	.01266	.00514	.91752	.09072	-.00017	-.00550	161.66	-.00033
#2	.00120	.01249	.00011	.92145	.09076	-.00029	-.00532	162.92	-.00018

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	.00120	.00127	.00636	11.210	.09172	15.465	.00616	-.00208
Stddev	.00013	.00028	.00028	.00046	.131	.00081	.030	.00025	.00020
%RSD	95.959	22.995	21.889	7.2418	1.1659	.88536	.19308	4.0091	9.7701

#1	-.00004	.00101	.00146	.00668	11.117	.09230	15.486	.00634	-.00223
#2	-.00023	.00140	.00107	.00603	11.302	.09115	15.444	.00599	-.00194

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	136.49	.00143	.01724	.00863	128.88	.00317	.01139	7.8287	16.753
Stddev	.91	.00005	.00203	.00142	.10	.00412	.00124	.0567	.121
%RSD	.66441	3.1585	11.796	16.417	.08009	129.97	10.849	.72472	.72472

#1	135.85	.00140	.01581	.00763	128.81	.00026	.01226	7.7885	16.667
#2	137.13	.00147	.01868	.00963	128.95	.00608	.01052	7.8688	16.839

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	W 5.3060	.00216	-.00072	-.00663	-.01364	.00035	.00444	.00085
Stddev	.00100	.0151	.00067	.00017	.00373	.02484	.00055	.00114	.00190
%RSD	1151.5	.28493	31.174	24.079	56.253	182.16	158.72	25.546	224.63

#1	.00062	5.2953	.00264	-.00085	-.00927	.00393	-.00004	.00364	.00219
#2	-.00080	5.3167	.00168	-.00060	-.00399	-.03120	.00073	.00525	-.00050

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		5.0000							
Low Limit		-.01000							

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3182.6	57574.	6384.5
Stddev	14.2	230.	34.8
%RSD	.44765	.39956	.54516

#1	3192.7	57412.	6359.9
#2	3172.5	57737.	6409.2

Sample Name: 280-70072-A-3-A Acquired: 6/5/2015 18:07:25 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280182 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.00274	-.00185	2.4634	.02539	-.00017	-.00307	420.81	-.00117
Stddev	.00000	.00020	.00283	.0113	.00114	.00006	.00018	11.76	.00019
%RSD	.17123	7.1167	152.77	.45911	4.4723	36.869	6.0265	2.7934	16.097

#1	.00008	.00260	-.00385	2.4714	.02619	-.00022	-.00320	429.12	-.00104
#2	.00008	.00288	.00015	2.4554	.02458	-.00013	-.00294	412.49	-.00131

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00056	.00119	-.00013	.66042	6.8492	.14923	42.923	.17333	-.00222
Stddev	.00070	.00003	.00008	.02409	.1598	.00469	.221	.00115	.00019
%RSD	125.30	2.7246	60.336	3.6476	2.3332	3.1453	.51437	.66552	8.6248

#1	.00006	.00121	-.00007	.67746	6.9622	.15255	43.080	.17414	-.00208
#2	.00105	.00117	-.00018	.64339	6.7362	.14591	42.767	.17251	-.00235

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	272.41	.00593	.01747	.00874	F 380.90	.00979	.00737	10.198	21.823
Stddev	9.06	.00094	.00206	.00001	.60	.00017	.00114	.328	.702
%RSD	3.3243	15.804	11.800	.11555	.15825	1.7837	15.513	3.2162	3.2162

#1	278.81	.00527	.01893	.00875	380.48	.00967	.00656	10.429	22.319
#2	266.00	.00659	.01602	.00873	381.33	.00992	.00818	9.9657	21.326

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00061	W 12.887	.00268	-.00059	-.00888	-.00871	-.00033	.00283	.00192
Stddev	.00065	.002	.00262	.00030	.00025	.00362	.00003	.00025	.00046
%RSD	106.96	.01246	98.097	51.205	2.8372	41.532	9.2338	8.9764	23.777

#1	-.00015	12.888	.00082	-.00080	-.00870	-.01127	-.00031	.00301	.00159
#2	-.00107	12.885	.00453	-.00037	-.00906	-.00615	-.00035	.00265	.00224

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		5.0000							
Low Limit		-.01000							

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2991.0	55196.	6426.1
Stddev	11.6	427.	128.6
%RSD	.38819	.77315	2.0014

#1	2982.8	54894.	6335.2
#2	2999.2	55497.	6517.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00080	.00800	.00008	.32886	.10649	-.00014	-.00517	131.25	-.00043
Stddev	.00014	.00007	.00084	.00053	.00069	.00009	.00025	.97	.00004
%RSD	17.622	.88637	1091.5	.16223	.64535	68.035	4.8984	.74093	9.7984

#1	.00070	.00795	.00067	.32848	.10600	-.00021	-.00499	130.57	-.00046
#2	.00090	.00805	-.00052	.32923	.10698	-.00007	-.00535	131.94	-.00040

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00017	.00134	.00004	.01418	1.9777	.03131	10.279	.00080	-.00226
Stddev	.00032	.00032	.00033	.00028	.0414	.00100	.040	.00014	.00017
%RSD	195.35	23.495	735.75	2.0059	2.0918	3.1995	.38992	17.808	7.6239

#1	.00006	.00157	.00028	.01397	1.9485	.03060	10.307	.00090	-.00213
#2	-.00039	.00112	-.00019	.01438	2.0070	.03202	10.251	.00070	-.00238

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	66.358	.00128	.00732	.00873	31.690	.00201	.01121	9.8064	20.986
Stddev	1.153	.00053	.00021	.00138	.027	.00283	.00249	.1545	.331
%RSD	1.7368	41.601	2.8668	15.857	.08554	140.52	22.187	1.5760	1.5760

#1	65.543	.00166	.00747	.00775	31.670	.00401	.01297	9.6972	20.752
#2	67.173	.00090	.00717	.00971	31.709	.00001	.00945	9.9157	21.220

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	4.7039	.00299	.00005	-.00607	-.03553	.00012	.00101	-.00173
Stddev	.00115	.0300	.00268	.00022	.00307	.04133	.00015	.00014	.00126
%RSD	904.70	.63836	89.577	435.05	50.550	116.31	130.93	14.208	72.681

#1	-.00094	4.6827	.00488	-.00010	-.00390	-.06475	.00022	.00111	-.00084
#2	.00069	4.7251	.00110	.00020	-.00823	-.00631	.00001	.00091	-.00262

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3182.2	56380.	6083.7
Stddev	20.7	108.	9.6
%RSD	.65007	.19186	.15772

#1	3167.5	56304.	6090.5
#2	3196.8	56457.	6076.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00115	.01248	-.00377	.82154	.02754	-.00015	-.00502	290.59	-.00075
Stddev	.00020	.00072	.00056	.00235	.00055	.00007	.00195	5.01	.00009
%RSD	17.482	5.7900	14.777	.28628	2.0129	46.973	38.809	1.7245	11.516

#1	.00129	.01197	-.00338	.82320	.02793	-.00020	-.00364	294.14	-.00082
#2	.00101	.01299	-.00416	.81988	.02715	-.00010	-.00640	287.05	-.00069

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00018	.00151	-.00052	.03328	2.9596	.08113	29.310	.00301	-.00288
Stddev	.00018	.00013	.00021	.00089	.0294	.00008	.059	.00007	.00043
%RSD	100.83	8.5692	40.597	2.6843	.99232	.10002	.20224	2.3271	15.098

#1	-.00031	.00160	-.00067	.03391	2.9389	.08108	29.268	.00296	-.00257
#2	-.00005	.00142	-.00037	.03265	2.9804	.08119	29.352	.00306	-.00319

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	142.45	.00419	.01134	.01107	F 212.11	.00670	.01045	7.6384	16.346
Stddev	2.01	.00041	.00143	.00048	.58	.00348	.00320	.0376	.080
%RSD	1.4119	9.8591	12.582	4.3325	.27480	52.034	30.608	.49208	.49208

#1	143.87	.00390	.01235	.01141	212.52	.00423	.00819	7.6649	16.403
#2	141.02	.00448	.01033	.01073	211.70	.00916	.01271	7.6118	16.289

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00041	W 8.7135	.00348	-.00031	-.00904	-.04094	-.00091	.00316	.00068
Stddev	.00150	.2476	.00066	.00028	.00234	.03979	.00066	.00056	.00239
%RSD	368.03	2.8417	18.917	89.435	25.828	97.190	73.137	17.640	353.08

#1	-.00146	8.8886	.00301	-.00012	-.00739	-.01280	-.00138	.00356	.00237
#2	.00065	8.5385	.00395	-.00051	-.01069	-.06907	-.00044	.00277	-.00101

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		5.0000							
Low Limit		-.01000							

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3149.3	54570.	6104.3
Stddev	17.8	620.	88.1
%RSD	.56375	1.1366	1.4440

#1	3136.8	54131.	6042.0
#2	3161.9	55008.	6166.7

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00286	47.941	.00601	.00283	-.00016	.00019	F .89051	.03776	-.00050	-.00132	.00097	-.00195
Stddev	.00061	.466	.00258	.00018	.00046	.00003	.00870	.00258	.00019	.00036	.00021	.00032
%RSD	21.377	.97274	42.882	6.3211	288.42	13.607	.97742	6.8375	39.176	26.831	21.900	16.425

#1	.00243	47.611	.00419	.00295	.00017	.00017	.88436	.03593	-.00063	-.00107	.00082	-.00173
#2	.00329	48.270	.00784	.00270	-.00048	.00021	.89667	.03958	-.00036	-.00158	.00112	-.00218

Check ?	None	Chk Pass	None	None	None	None	Chk Fail	None	None	None	None	None
Value							1.0000					
Range							-10.490%					

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	45.980	.35385	.00459	-.01070	-.00162	-.00010	236.00	.00151	.00382	.00202	F 4.1920	-.00667
Stddev	.047	.03285	.00003	.00468	.00005	.00015	2.59	.00023	.00017	.00327	.0418	.00417
%RSD	.10259	9.2824	.63153	43.762	2.8564	152.20	1.0966	15.132	4.3869	161.81	.99835	62.493

#1	45.947	.37708	.00456	-.00739	-.00166	-.00021	234.17	.00168	.00394	-.00029	4.1625	-.00962
#2	46.013	.33063	.00461	-.01401	-.00159	.00001	237.83	.00135	.00370	.00434	4.2216	-.00372

Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None	Chk Fail	None
Value											5.0000	
Range											-10.490%	

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00165	-.03368	-.07207	-.00248	.00070	4.8512	-.01565	.00261	10.141	.00227	.00078	.06473
Stddev	.00040	.01017	.02177	.00023	.00008	.0091	.00019	.00106	.098	.00039	.00019	.00105
%RSD	24.070	30.209	30.209	9.4310	11.441	.18832	1.2234	40.553	.96331	17.378	24.356	1.6184

#1	.00137	-.02648	-.05667	-.00265	.00064	4.8577	-.01551	.00336	10.210	.00255	.00092	.06399
#2	.00194	-.04087	-.08746	-.00231	.00075	4.8448	-.01578	.00186	10.072	.00199	.00065	.06547

Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3293.9	59852.	6550.4
Stddev	35.3	30.	39.9
%RSD	1.0719	.05036	.60969

#1	3318.9	59873.	6578.7
#2	3268.9	59831.	6522.2

Sample Name: CCV-3305006 Acquired: 6/5/2015 18:18:09 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51109	.45835	F .86721	.46359	.48831	F .44595	-.00122	4.8493	.45477	.48733	.47057	.47035
Stddev	.00008	.00090	.00476	.00076	.00485	.00456	.00130	.0552	.00045	.00172	.00080	.00250
%RSD	.01479	.19592	.54852	.16485	.99310	1.0222	106.18	1.1384	.09857	.35267	.17056	.53083

#1	.51104	.45899	.86385	.46413	.48488	.44273	-.00214	4.8103	.45509	.48855	.47000	.46858
#2	.51115	.45772	.87058	.46305	.49174	.44918	-.00030	4.8884	.45445	.48612	.47113	.47211

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			1.0000			.50000						
Range			-10.490%			-10.490%						

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.2639	48.336	.93051	20.071	.50028	F .43769	5.0225	.48771	.91647	.96404	.02421	.90199
Stddev	.0390	.648	.01369	.043	.00068	.00062	.0430	.00028	.00271	.00107	.00078	.00586
%RSD	1.7219	1.3413	1.4709	.21476	.13554	.14132	.85527	.05673	.29575	.11093	3.2350	.65008

#1	2.2364	47.878	.92083	20.040	.49980	.43725	4.9921	.48791	.91839	.96479	.02476	.90614
#2	2.2915	48.794	.94018	20.101	.50076	.43812	5.0529	.48752	.91456	.96328	.02365	.89785

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value						.50000						
Range						-10.490%						

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .87734	4.5853	9.8126	F .87399	.45274	.00016	.49276	.90207	.03244	.51406	.49009	.47900
Stddev	.01237	.0499	.1067	.00321	.00479	.00079	.00291	.00043	.00443	.00218	.00155	.00611
%RSD	1.4102	1.0873	1.0873	.36724	1.0572	496.30	.59052	.04811	13.668	.42472	.31539	1.2749

#1	.88609	4.5501	9.7372	.87626	.44935	.00072	.49482	.90237	.02931	.51251	.48900	.47468
#2	.86859	4.6206	9.8881	.87172	.45612	-.00040	.49070	.90176	.03558	.51560	.49118	.48332

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value	1.0000			1.0000								
Range	-10.490%			-10.490%								

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3382.5	60831.	6551.0
Stddev	.4	1.	31.8
%RSD	.01174	.00091	.48615

#1	3382.2	60831.	6573.5
#2	3382.8	60832.	6528.5

Sample Name: CCB Acquired: 6/5/2015 18:20:38 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00067	-.00027	.00329	.00150	-.00058	-.00014	.00058	-.00147	-.00023	.00014	.00006	-.00136
Stddev	.00011	.00038	.00165	.00004	.00011	.00004	.00026	.00037	.00006	.00012	.00021	.00004
%RSD	16.147	142.24	50.300	2.3787	19.937	28.094	45.515	25.325	27.117	84.489	377.16	2.7900

#1	.00059	-.00054	.00445	.00147	-.00066	-.00016	.00039	-.00121	-.00019	.00023	-.00009	-.00133
#2	.00075	.00000	.00212	.00152	-.00050	-.00011	.00076	-.00174	-.00028	.00006	.00021	-.00139

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00055	.22189	.00330	-.00919	-.00001	-.00014	.21028	.00006	.00019	.00010	.02202	.00131
Stddev	.00062	.03000	.00108	.00265	.00005	.00014	.00699	.00028	.00012	.00056	.00271	.00186
%RSD	113.64	13.522	32.896	28.876	668.85	97.747	3.3242	459.74	59.379	551.32	12.310	142.05

#1	-.00098	.24311	.00253	-.01106	-.00004	-.00024	.20533	.00026	.00028	-.00029	.02394	-.00001
#2	-.00011	.20068	.00407	-.00731	.00003	-.00004	.21522	-.00014	.00011	.00050	.02011	.00262

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F.00514	-.00168	-.00360	-.00014	.00008	.00550	-.00069	.00335	-.03696	-.00034	.00028	.00160
Stddev	.00177	.01323	.02832	.00098	.00004	.00165	.00015	.00141	.00416	.00049	.00022	.00022
%RSD	34.491	786.85	786.85	699.25	47.126	29.965	22.154	42.200	11.250	146.65	78.499	13.564

#1	.00388	.00768	.01643	-.00084	.00005	.00433	-.00080	.00435	-.03402	.00001	.00012	.00145
#2	.00639	-.01104	-.02363	.00056	.00011	.00666	-.00058	.00235	-.03990	-.00068	.00043	.00175

Check ?	Chk Fail	Chk Pass										
High Limit	.00500											
Low Limit	-.00500											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3445.2	62313.	6694.8
Stddev	7.2	117.	35.4
%RSD	.20852	.18708	.52924

#1	3440.1	62231.	6719.8
#2	3450.3	62396.	6669.7

Sample Name: CCVL3312280 Acquired: 6/5/2015 18:23:00 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01070	.09678	.01384	.09477	.00993	.00071	.09890	.20314	.00442	.01027	.00988	.01249
Stddev	.00012	.00031	.00182	.00004	.00001	.00011	.00078	.00137	.00024	.00001	.00010	.00017
%RSD	1.0925	.32423	13.125	.04037	.08921	15.634	.78892	.67306	5.4400	.14171	1.0357	1.3976

#1	.01078	.09656	.01512	.09480	.00993	.00063	.09835	.20217	.00425	.01028	.00981	.01262
#2	.01061	.09700	.01255	.09475	.00992	.00078	.09945	.20411	.00459	.01026	.00996	.01237

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09324	3.1902	.01265	.21289	.01060	.01721	1.2053	.03984	2.6681	.00861	.02196	.00959
Stddev	.00026	.0823	.00094	.00751	.00002	.00030	.0044	.00002	.0001	.00203	.00297	.00102
%RSD	.27510	2.5809	7.4415	3.5288	.17629	1.7694	.36773	.05004	.00418	23.549	13.514	10.596

#1	.09306	3.2484	.01332	.20758	.01061	.01699	1.2022	.03985	2.6682	.01004	.02406	.01031
#2	.09342	3.1320	.01199	.21821	.01059	.01742	1.2084	.03983	2.6680	.00718	.01986	.00887

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .02163	.45679	.97754	.08668	.00967	.01779	.00961	.01635	F .03491	.01001	.02263	.01674
Stddev	.00359	.02322	.04969	.00075	.00001	.00020	.00004	.00127	.00388	.00032	.00201	.00054
%RSD	16.599	5.0830	5.0830	.86915	.14788	1.1375	.40963	7.7757	11.104	3.2318	8.8657	3.1962

#1	.02416	.47321	1.0127	.08721	.00966	.01793	.00963	.01725	.03766	.00978	.02121	.01712
#2	.01909	.44037	.94240	.08615	.00968	.01765	.00958	.01545	.03217	.01024	.02405	.01637

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass						
Value	.01500								.06000			
Range	30.000%								-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3503.2	63200.	6745.2
Stddev	10.2	102.	9.9
%RSD	.29094	.16159	.14716

#1	3496.0	63128.	6738.2
#2	3510.4	63272.	6752.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00085	.00545	-.00100	.29555	.07598	-.00014	-.00393	210.85	-.00046
Stddev	.00010	.00059	.00186	.00107	.00085	.00006	.00055	1.84	.00002
%RSD	11.404	10.848	186.53	.36107	1.1179	38.286	13.962	.87307	4.9517

#1	.00092	.00587	.00032	.29480	.07538	-.00018	-.00354	209.55	-.00045
#2	.00078	.00503	-.00232	.29630	.07658	-.00011	-.00432	212.15	-.00048

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00043	.00113	.00217	.00786	1.7697	.03192	11.611	.02736	-.00206
Stddev	.00010	.00001	.00007	.00041	.0686	.00025	.018	.00009	.00018
%RSD	22.237	.60194	3.1964	5.2357	3.8736	.76807	.15285	.32462	8.7260

#1	.00050	.00113	.00212	.00815	1.7212	.03175	11.624	.02743	-.00193
#2	.00037	.00112	.00222	.00757	1.8182	.03209	11.599	.02730	-.00219

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	60.453	.00434	.01748	.00883	70.878	.00545	.00722	6.4834	13.874
Stddev	.054	.00047	.00236	.00003	.095	.00134	.00264	.0757	.162
%RSD	.08922	10.747	13.482	.28876	.13366	24.478	36.566	1.1672	1.1672

#1	60.415	.00467	.01582	.00882	70.811	.00451	.00535	6.4299	13.760
#2	60.491	.00401	.01915	.00885	70.945	.00640	.00909	6.5369	13.989

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00104	4.7523	.00306	-.00030	-.00739	-.03684	-.00011	.00319	.00000
Stddev	.00054	.0357	.00022	.00062	.00058	.04614	.00062	.00045	.00035
%RSD	51.739	.75058	7.1861	206.62	7.8980	125.21	569.43	14.068	42149.

#1	.00066	4.7271	.00290	-.00074	-.00698	-.06947	-.00055	.00287	.00025
#2	.00142	4.7775	.00321	.00014	-.00780	-.00422	.00033	.00350	-.00024

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3268.1	58958.	6643.7
Stddev	2.9	210.	35.5
%RSD	.09003	.35688	.53494

#1	3266.1	59107.	6668.9
#2	3270.2	58809.	6618.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00042	.00375	.00043	1.2543	.05406	-.00014	-.00446	175.32	-.00025
Stddev	.00002	.00072	.00202	.0077	.00050	.00002	.00061	.17	.00022
%RSD	3.9442	19.160	472.10	.61514	.92990	17.412	13.580	.09926	85.051

#1	.00043	.00324	.00185	1.2488	.05441	-.00012	-.00489	175.45	-.00010
#2	.00041	.00426	-.00100	1.2597	.05370	-.00016	-.00403	175.20	-.00041

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00075	.00127	.00109	.07363	4.5300	.09315	24.794	.07102	-.00146
Stddev	.00022	.00010	.00034	.00053	.0002	.00184	.006	.00002	.00003
%RSD	29.291	7.5138	31.575	.72038	.00349	1.9758	.02288	.02124	1.7511

#1	.00091	.00120	.00133	.07400	4.5299	.09185	24.798	.07101	-.00148
#2	.00060	.00133	.00085	.07325	4.5301	.09445	24.790	.07103	-.00144

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	168.20	.00365	.03557	.00994	155.77	.00343	.00768	8.0631	17.255
Stddev	.28	.00009	.00068	.00185	.02	.00289	.00364	.0123	.026
%RSD	.16601	2.5616	1.9056	18.653	.01045	84.357	47.408	.15243	.15243

#1	168.40	.00372	.03605	.00863	155.75	.00138	.01026	8.0718	17.274
#2	168.01	.00358	.03509	.01125	155.78	.00547	.00511	8.0544	17.237

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00049	W 9.8140	.00408	.00013	-.00717	W -.05690	.00077	.00183	.00166
Stddev	.00071	.0212	.00057	.00027	.00056	.01035	.00037	.00033	.00122
%RSD	143.67	.21613	13.998	211.34	7.8566	18.196	48.361	17.914	73.231

#1	.00099	9.7990	.00448	-.00006	-.00677	-.06422	.00103	.00206	.00253
#2	-.00001	9.8290	.00367	.00031	-.00757	-.04958	.00051	.00160	.00080

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit		5.0000				45.000			
Low Limit		-.01000				-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3238.4	58578.	6571.4
Stddev	2.5	16.	9.6
%RSD	.07688	.02758	.14647

#1	3240.1	58589.	6564.5
#2	3236.6	58567.	6578.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00084	.00449	.00367	.78941	.04803	-.00009	-.00563	171.14	-.00057
Stddev	.00065	.00006	.00023	.00412	.00119	.00000	.00066	1.54	.00017
%RSD	78.036	1.3791	6.1335	.52181	2.4859	1.5418	11.659	.89940	29.639

#1	.00130	.00453	.00351	.78649	.04718	-.00009	-.00517	170.05	-.00069
#2	.00038	.00445	.00383	.79232	.04887	-.00010	-.00610	172.22	-.00045

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00132	.00106	.00007	.11745	2.1410	.05393	14.907	.09838	-.00170
Stddev	.00051	.00008	.00059	.00341	.0418	.00019	.121	.00208	.00006
%RSD	38.908	7.1592	896.30	2.9014	1.9531	.34679	.81495	2.1104	3.4959

#1	.00168	.00101	.00048	.11504	2.1114	.05380	14.993	.09984	-.00166
#2	.00095	.00112	-.00035	.11986	2.1706	.05406	14.821	.09691	-.00174

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	122.99	.00503	.02669	.01035	110.14	.00499	.01005	10.937	23.404
Stddev	1.70	.00050	.00039	.00024	.05	.00242	.00015	.294	.630
%RSD	1.3794	9.9834	1.4592	2.3536	.04838	48.528	1.5192	2.6906	2.6906

#1	121.79	.00468	.02696	.01052	110.10	.00328	.01016	10.729	22.959
#2	124.19	.00539	.02641	.01018	110.17	.00670	.00995	11.145	23.850

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00046	4.8369	.00292	-.00037	-.00569	-.03451	-.00032	.00225	.00056
Stddev	.00040	.0444	.00234	.00017	.00014	.01994	.00001	.00017	.00184
%RSD	85.102	.91727	80.217	47.225	2.5209	57.801	2.1677	7.4382	331.11

#1	.00074	4.8055	.00126	-.00025	-.00579	-.04861	-.00032	.00237	.00185
#2	.00018	4.8682	.00457	-.00049	-.00559	-.02040	-.00033	.00213	-.00074

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3246.3	57860.	6531.6
Stddev	.8	449.	91.3
%RSD	.02539	.77580	1.3984

#1	3245.7	57542.	6596.2
#2	3246.9	58177.	6467.0

Sample Name: 280-70072-A-9-A Acquired: 6/5/2015 18:33:35 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280182 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00020	.00213	.00325	1.1913	.03913	-.00016	-.00462	180.92	-.00056
Stddev	.00027	.00032	.00289	.0012	.00015	.00013	.00017	.62	.00007
%RSD	136.52	15.235	89.004	.09879	.38970	83.352	3.6733	.34457	12.864

#1	.00039	.00236	.00120	1.1905	.03902	-.00007	-.00474	181.36	-.00061
#2	.00001	.00190	.00530	1.1922	.03923	-.00025	-.00450	180.48	-.00051

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	.00140	-.00004	.00661	3.2528	.06774	18.192	.01482	-.00238
Stddev	.00033	.00004	.00011	.00159	.0794	.00149	.014	.00016	.00004
%RSD	251.57	2.6421	291.18	24.131	2.4407	2.2016	.07794	1.1073	1.6702

#1	.00010	.00137	.00004	.00773	3.3089	.06669	18.202	.01470	-.00235
#2	-.00036	.00142	-.00011	.00548	3.1967	.06879	18.182	.01493	-.00241

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	111.68	.00303	.00535	.01022	113.23	.00569	.01086	10.150	21.720
Stddev	.51	.00019	.00360	.00061	.76	.00389	.00277	.015	.032
%RSD	.45337	6.3741	67.334	5.9970	.67501	68.318	25.487	.14651	.14651

#1	112.04	.00289	.00280	.00979	113.77	.00844	.00890	10.139	21.698
#2	111.32	.00317	.00789	.01065	112.69	.00294	.01281	10.160	21.743

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00106	W 11.178	.00252	-.00061	-.00804	W -.05561	-.00059	.00111	.00227
Stddev	.00027	.089	.00037	.00050	.00036	.01365	.00027	.00061	.00136
%RSD	25.245	.79599	14.725	81.098	4.4807	24.552	45.616	54.733	60.072

#1	.00087	11.241	.00225	-.00026	-.00829	-.06527	-.00077	.00068	.00130
#2	.00125	11.115	.00278	-.00097	-.00778	-.04596	-.00040	.00154	.00323

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit		5.0000				45.000			
Low Limit		-.01000				-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3234.7	58129.	6515.0
Stddev	6.5	4.	58.2
%RSD	.19987	.00739	.89382

#1	3230.2	58132.	6556.1
#2	3239.3	58126.	6473.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00054	.00930	.00550	.32470	.12825	-.00008	-.00221	286.92	-.00079
Stddev	.00063	.00040	.00081	.00132	.00034	.00001	.00019	1.25	.00012
%RSD	117.42	4.3247	14.770	.40591	.26362	7.5996	8.6902	.43574	15.171

#1	.00009	.00902	.00492	.32377	.12801	-.00007	-.00234	287.80	-.00071
#2	.00098	.00959	.00607	.32563	.12849	-.00008	-.00207	286.03	-.00088

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00449	.00129	.00255	.12753	2.4856	.02908	12.138	.35001	-.00223
Stddev	.00023	.00002	.00077	.00040	.0080	.00081	.008	.00029	.00004
%RSD	5.2130	1.5370	30.116	.31009	.32117	2.7914	.06614	.08352	1.7668

#1	.00432	.00131	.00201	.12725	2.4913	.02851	12.132	.34980	-.00220
#2	.00465	.00128	.00310	.12781	2.4800	.02965	12.144	.35022	-.00226

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	37.432	.01438	W 2.0756	.01240	59.451	.01041	.01006	8.5550	18.308
Stddev	.594	.00039	.0201	.00151	.118	.00227	.00456	.0215	.046
%RSD	1.5861	2.7126	.96693	12.160	.19832	21.753	45.309	.25156	.25156

#1	37.012	.01410	2.0614	.01133	59.534	.00881	.00684	8.5398	18.275
#2	37.851	.01465	2.0898	.01347	59.367	.01202	.01328	8.5702	18.340

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00059	4.5891	.00207	-.00043	-.00690	-.00765	.00265	.00685	.00160
Stddev	.00037	.0157	.00112	.00020	.00258	.02160	.00016	.00058	.00287
%RSD	63.366	.34294	53.779	46.184	37.447	282.46	6.0077	8.5228	179.77

#1	.00033	4.5780	.00286	-.00029	-.00507	-.02292	.00254	.00643	.00363
#2	.00085	4.6002	.00129	-.00057	-.00873	.00763	.00276	.00726	-.00043

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3173.9	57088.	6375.8
Stddev	.1	293.	37.2
%RSD	.00352	.51395	.58314

#1	3174.0	56881.	6402.1
#2	3173.9	57296.	6349.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00070	.08667	.00089	1.3618	.07946	-.00005	-.00327	158.45	-.00030
Stddev	.00004	.00078	.00300	.0028	.00013	.00004	.00101	2.16	.00015
%RSD	5.3131	.90096	338.45	.20514	.16542	86.610	30.694	1.3620	50.181

#1	.00072	.08722	.00301	1.3638	.07936	-.00008	-.00399	156.92	-.00041
#2	.00067	.08611	-.00124	1.3598	.07955	-.00002	-.00256	159.97	-.00019

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	.00856	.00415	.43619	1.9710	.05035	12.451	.01798	-.00191
Stddev	.00004	.00006	.00025	.00207	.0341	.00119	.006	.00006	.00021
%RSD	29.908	.73550	6.0392	.47373	1.7278	2.3650	.05084	.32067	10.777

#1	-.00015	.00851	.00397	.43473	1.9470	.05119	12.456	.01794	-.00206
#2	-.00010	.00860	.00433	.43766	1.9951	.04951	12.447	.01803	-.00177

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	199.48	.00428	.03592	.01184	73.216	.00521	.01020	6.5845	14.091
Stddev	2.26	.00013	.00081	.00082	.207	.00352	.00044	.0041	.009
%RSD	1.1312	2.9433	2.2613	6.9268	.28244	67.512	4.2706	.06238	.06238

#1	197.89	.00437	.03649	.01126	73.363	.00272	.01051	6.5816	14.085
#2	201.08	.00419	.03534	.01242	73.070	.00769	.00990	6.5874	14.097

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00095	3.4092	.00313	.00305	-.00669	W -.05462	.00018	.02765	.00333
Stddev	.00106	.0413	.00109	.00028	.00225	.04851	.00079	.00073	.00012
%RSD	111.28	1.2100	34.767	9.0659	33.640	88.824	435.93	2.6469	3.6497

#1	.00170	3.3800	.00236	.00285	-.00510	-.02031	-.00038	.02713	.00325
#2	.00020	3.4383	.00390	.00324	-.00828	-.08892	.00074	.02816	.00342

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3306.4	57788.	6420.4
Stddev	10.4	125.	73.8
%RSD	.31426	.21577	1.1490

#1	3299.1	57700.	6472.5
#2	3313.8	57876.	6368.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.01178	-.00327	1.2021	.05839	-.00008	-.00244	94.606	-.00024
Stddev	.00018	.00056	.00334	.0173	.00122	.00001	.00017	.171	.00016
%RSD	1977.8	4.7483	102.05	1.4367	2.0854	17.424	6.8852	.18036	64.718

#1	.00014	.01218	-.00091	1.1899	.05753	-.00009	-.00256	94.485	-.00035
#2	-.00012	.01139	-.00563	1.2143	.05925	-.00007	-.00232	94.727	-.00013

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00021	.00107	-.00037	.11913	2.2956	.04319	8.3738	.04791	-.00138
Stddev	.00015	.00008	.00029	.00451	.0537	.00098	.0230	.00012	.00001
%RSD	74.281	7.7681	77.318	3.7831	2.3375	2.2750	.27465	.25675	.57724

#1	.00010	.00101	-.00058	.11594	2.2577	.04250	8.3900	.04800	-.00138
#2	.00032	.00113	-.00017	.12232	2.3336	.04389	8.3575	.04782	-.00137

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	136.76	.00143	.03415	.00744	36.338	-.00010	.01334	7.9893	17.097
Stddev	.31	.00083	.00088	.00044	.255	.00029	.00636	.1734	.371
%RSD	.22593	58.199	2.5833	5.8977	.70237	295.55	47.701	2.1704	2.1704

#1	136.54	.00202	.03477	.00776	36.157	.00011	.00884	7.8666	16.835
#2	136.98	.00084	.03352	.00713	36.518	-.00030	.01784	8.1119	17.359

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	2.1745	.00374	-.00059	-.00430	-.02868	.00105	.00149	.00098
Stddev	.00077	.0057	.00059	.00023	.00038	.01084	.00014	.00038	.00053
%RSD	939.06	.26363	15.816	39.242	8.9133	37.782	12.870	25.692	53.766

#1	.00046	2.1704	.00416	-.00043	-.00403	-.03634	.00115	.00176	.00135
#2	-.00063	2.1785	.00332	-.00075	-.00457	-.02102	.00095	.00122	.00061

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3334.1	60244.	6775.3
Stddev	35.2	22.	7.4
%RSD	1.0557	.03591	.10971

#1	3358.9	60228.	6780.6
#2	3309.2	60259.	6770.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00059	.00898	.00621	.06516	.24169	-.00007	-.00512	109.64	-.00027
Stddev	.00000	.00034	.00440	.00003	.00108	.00000	.00335	.63	.00002
%RSD	.47527	3.7395	70.792	.04706	.44528	.78608	65.405	.57772	5.6024

#1	.00058	.00874	.00310	.06514	.24093	-.00007	-.00275	109.19	-.00026
#2	.00059	.00921	.00932	.06518	.24245	-.00007	-.00749	110.09	-.00028

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00498	.00105	-.00022	1.6493	.68318	.02428	38.815	1.6238	-.00238
Stddev	.00016	.00005	.00024	.0239	.04384	.00028	.045	.0012	.00064
%RSD	3.2580	4.6661	112.20	1.4468	6.4168	1.1632	.11524	.07295	26.852

#1	.00487	.00109	-.00005	1.6324	.65219	.02408	38.847	1.6247	-.00283
#2	.00510	.00102	-.00039	1.6661	.71418	.02448	38.783	1.6230	-.00193

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	135.18	.00212	.01841	.00869	15.435	.00306	.01311	10.809	23.131
Stddev	1.26	.00052	.00130	.00080	.086	.00124	.00076	.230	.492
%RSD	.93376	24.718	7.0468	9.1662	.55508	40.325	5.8303	2.1292	2.1292

#1	134.29	.00175	.01749	.00925	15.496	.00219	.01365	10.646	22.782
#2	136.07	.00248	.01933	.00813	15.375	.00394	.01257	10.971	23.479

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.61790	.00368	-.00038	-.00535	-.02569	-.00055	.00074	.00294
Stddev	.00004	.00403	.00004	.00016	.00183	.03170	.00008	.00055	.00183
%RSD	44.273	.65229	.96912	42.744	34.299	123.36	15.004	75.066	62.470

#1	.00011	.61505	.00371	-.00026	-.00405	-.04811	-.00049	.00113	.00164
#2	.00006	.62075	.00366	-.00049	-.00664	-.00328	-.00061	.00035	.00423

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3334.4	59774.	6671.9
Stddev	1.2	.	52.4
%RSD	.03502	.00033	.78545

#1	3335.2	59774.	6709.0
#2	3333.5	59774.	6634.9

Sample Name: 280-70069-A-2-A Acquired: 6/5/2015 18:46:51 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280182 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.00489	-.00070	.12975	.32847	-.00012	-.00354	108.96	.00001
Stddev	.00061	.00021	.00148	.00013	.00298	.00004	.00308	.79	.00016
%RSD	638.17	4.2896	210.34	.09704	.90814	30.760	86.910	.72828	1499.7

#1	.00053	.00474	-.00175	.12966	.32637	-.00015	-.00572	108.40	-.00010
#2	-.00034	.00504	.00034	.12984	.33058	-.00010	-.00136	109.52	.00012

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00027	.00104	-.00051	.10570	1.7676	.04298	58.563	.22548	-.00203
Stddev	.00015	.00003	.00031	.00091	.0967	.00134	.021	.00035	.00005
%RSD	55.393	2.4144	60.425	.86085	5.4714	3.1177	.03582	.15408	2.4179

#1	-.00016	.00102	-.00029	.10506	1.6992	.04203	58.578	.22573	-.00207
#2	-.00037	.00106	-.00073	.10635	1.8360	.04393	58.548	.22524	-.00200

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	125.96	.00025	.03034	.00972	2.2624	.00109	.00884	10.714	22.927
Stddev	.77	.00002	.00142	.00023	.0021	.00169	.00011	.099	.211
%RSD	.61045	6.2882	4.6707	2.3850	.09051	154.76	1.2154	.92171	.92171

#1	125.42	.00027	.03134	.00956	2.2639	-.00010	.00876	10.644	22.778
#2	126.50	.00024	.02934	.00988	2.2610	.00228	.00892	10.783	23.077

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00035	.99218	.00312	-.00034	-.00574	W -.05002	-.00048	.00048	.00147
Stddev	.00095	.00651	.00055	.00014	.00288	.00901	.00010	.00051	.00157
%RSD	268.57	.65573	17.686	41.387	50.160	18.013	21.463	105.63	106.55

#1	-.00103	.98758	.00351	-.00044	-.00777	-.05640	-.00056	.00012	.00258
#2	.00032	.99678	.00273	-.00024	-.00370	-.04365	-.00041	.00084	.00036

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3237.1	58225.	6583.9
Stddev	5.3	128.	84.0
%RSD	.16498	.21906	1.2759

#1	3233.3	58315.	6643.3
#2	3240.8	58135.	6524.5

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00364	48.676	-.00078	.00130	-.00036	.00006	W .90657	.03064	-.00018	-.00088	.00062
Stddev	.00059	.349	.00227	.00037	.00016	.00001	.00498	.00456	.00006	.00005	.00029
%RSD	16.302	.71709	291.66	28.281	45.224	14.882	.54959	14.876	30.020	5.8465	46.050

#1	.00406	48.430	.00083	.00155	-.00048	.00006	.90305	.02741	-.00022	-.00091	.00042
#2	.00322	48.923	-.00238	.00104	-.00025	.00007	.91009	.03386	-.00014	-.00084	.00083

Check ?	None	Chk Pass	None	None	None	None	Chk Warn	None	None	None	None
Value							1.0000				
Range							-5.0000%				

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00203	46.342	.18916	.00218	-.02118	-.00170	-.00057	239.70	.00084	.00764	.00131
Stddev	.00056	.597	.07383	.00081	.00481	.00004	.00017	.53	.00005	.00055	.00225
%RSD	27.308	1.2879	39.033	37.362	22.697	2.1474	30.224	.21916	6.2671	7.2239	171.48

#1	-.00164	45.920	.24137	.00160	-.02458	-.00167	-.00045	239.32	.00087	.00803	.00290
#2	-.00242	46.764	.13695	.00276	-.01778	-.00172	-.00070	240.07	.00080	.00725	-.00028

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 4.2896	-.00699	.00195	-.00822	-.01759	-.00156	.00047	4.9118	-.01586	.00325	10.165
Stddev	.0452	.00263	.00552	.00198	.00423	.00010	.00001	.0131	.00017	.00071	.063
%RSD	1.0525	37.615	283.50	24.071	24.071	6.2599	1.3041	.26632	1.0789	21.954	.62459

#1	4.2577	-.00885	-.00196	-.00682	-.01460	-.00149	.00047	4.9210	-.01573	.00376	10.120
#2	4.3216	-.00513	.00585	-.00962	-.02059	-.00163	.00048	4.9025	-.01598	.00275	10.210

Check ?	Chk Fail	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	5.0000										
Range	-10.490%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00234	.00011	.06406
Stddev	.00039	.00037	.00375
%RSD	16.652	344.32	5.8543

#1	.00206	.00037	.06141
#2	.00261	-.00016	.06671

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3365.9	59906.	6561.1
Stddev	7.3	6.	21.9
%RSD	.21834	.01040	.33321

#1	3371.1	59902.	6576.5
#2	3360.7	59911.	6545.6

Sample Name: CCV-3305006 Acquired: 6/5/2015 18:52:06 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51574	.45017	F .87105	.45525	.48976	F .44536	-.00358	4.7886	W .44911	.47758	.47154
Stddev	.00425	.00360	.00642	.00090	.00541	.00542	.00051	.0519	.00096	.00022	.00121
%RSD	.82378	.80026	.73657	.19670	1.1053	1.2164	14.298	1.0835	.21452	.04510	.25622

#1	.51874	.45272	.87559	.45588	.48594	.44153	-.00394	4.7519	.44843	.47743	.47068
#2	.51273	.44762	.86652	.45462	.49359	.44920	-.00322	4.8253	.44979	.47773	.47239

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass	Chk Warn	Chk Pass	Chk Pass
Value			1.0000			.50000			.50000		
Range			-10.490%			-10.490%			-10.000%		

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46885	F 2.2361	48.065	.92999	20.112	.50082	F .42605	4.9354	.47789	.90246	.94056
Stddev	.00188	.0193	.453	.01057	.098	.00240	.00137	.0665	.00016	.00094	.00013
%RSD	.40043	.86254	.94246	1.1363	.48944	.47962	.32190	1.3477	.03437	.10403	.01393

#1	.47018	2.2224	47.744	.92252	20.182	.50252	.42702	4.8883	.47801	.90312	.94046
#2	.46753	2.2497	48.385	.93746	20.043	.49912	.42508	4.9824	.47778	.90179	.94065

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		2.5000					.50000				
Range		-10.490%					-10.490%				

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02258	F .88340	F .85526	W 4.4764	W 9.5795	F .84818	.45156	.00285	.49126	F .87793	-.02555
Stddev	.00111	.00571	.00004	.0580	.1242	.00067	.00563	.00129	.00519	.00153	.01209
%RSD	4.9237	.64616	.00477	1.2961	1.2961	.07884	1.2466	45.131	1.0561	.17430	47.303

#1	.02337	.88744	.85528	4.4354	9.4917	.84865	.44758	.00194	.49493	.87685	-.03410
#2	.02179	.87936	.85523	4.5174	9.6673	.84770	.45554	.00376	.48759	.87901	-.01701

Check ?	None	Chk Fail	Chk Fail	Chk Warn	Chk Warn	Chk Fail	Chk Pass	None	Chk Pass	Chk Fail	None
Value		1.0000	1.0000	5.0000	10.700	1.0000				1.0000	
Range		-10.490%	-10.490%	-10.000%	-10.000%	-10.490%				-10.490%	

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.50560	.48164	.47267
Stddev	.00445	.00358	.00452
%RSD	.88084	.74323	.95541

#1	.50875	.48417	.46948
#2	.50245	.47911	.47587

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3481.6	61833.	6746.7
Stddev	4.9	16.	42.3
%RSD	.14124	.02562	.62643

#1	3478.1	61822.	6776.6
#2	3485.0	61844.	6716.8

Sample Name: CCB Acquired: 6/5/2015 18:54:34 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0001	-0.00032	-0.00016	.00053	.00001	-0.00013	-0.00130	.00366	-0.00020	.00002	.00009	-0.00134
Stddev	.00016	.00060	.00244	.00110	.00006	.00008	.00059	.00101	.00024	.00027	.00017	.00058
%RSD	2597.8	189.11	1491.2	209.93	423.26	62.642	45.146	27.572	118.20	1129.6	194.68	43.020

#1	.00011	-.00074	-.00189	-.00025	-.00003	-.00019	-.00088	.00437	-.00003	.00022	.00021	-.00093
#2	-.00012	.00011	.00156	.00131	.00006	-.00007	-.00171	.00294	-.00037	-.00017	-.00003	-.00175

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00230	.24206	.00133	-0.00607	.00003	.00012	.17731	-0.00009	.00011	.00019	.01373	-0.00174
Stddev	.00114	.01589	.00191	.00688	.00003	.00016	.01318	.00028	.00146	.00045	.00084	.00106
%RSD	49.509	6.5645	143.68	113.33	114.51	130.04	7.4342	310.62	1293.0	240.79	6.1441	60.804

#1	-.00149	.25330	.00268	-.00121	.00005	.00001	.18663	-.00029	-.00092	.00051	.01433	-.00248
#2	-.00310	.23083	-.00002	-.01093	.00001	.00024	.16799	.00011	.00115	-.00013	.01313	-.00099

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F.00742	-0.00615	-.01315	-0.00073	.00023	.00418	-0.00048	.00073	-0.02530	.00051	.00145	.00231
Stddev	.00177	.00158	.00338	.00027	.00006	.00056	.00021	.00090	.01937	.00011	.00044	.00195
%RSD	23.877	25.720	25.720	37.351	25.608	13.479	42.985	122.61	76.563	22.136	30.500	84.424

#1	.00616	-.00726	-.01554	-.00093	.00027	.00457	-.00034	.00137	-.01160	.00059	.00177	.00368
#2	.00867	-.00503	-.01076	-.00054	.00019	.00378	-.00063	.00010	-.03899	.00043	.00114	.00093

Check ?	Chk Fail	Chk Pass										
High Limit	.00500											
Low Limit	-.00500											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3476.7	63878.	6780.3
Stddev	3.9	213.	5.0
%RSD	.11246	.33414	.07302

#1	3474.0	64029.	6776.8
#2	3479.5	63727.	6783.8

Sample Name: CCVL3312280 Acquired: 6/5/2015 18:56:56 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01000	.10192	.01372	.09183	.00931	.00077	.09762	.19391	.00438	.01003	.01018	.01390
Stddev	.00041	.00051	.00080	.00027	.00016	.00005	.00068	.00406	.00007	.00033	.00038	.00023
%RSD	4.0914	.50145	5.8569	.29785	1.7193	6.0004	.69781	2.0915	1.6520	3.3363	3.7667	1.6292

#1	.01029	.10228	.01315	.09163	.00920	.00080	.09713	.19104	.00443	.00979	.00991	.01374
#2	.00971	.10156	.01429	.09202	.00942	.00074	.09810	.19677	.00433	.01027	.01045	.01406

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09006	3.0801	.01152	.21084	.01029	.01717	1.1138	.03943	2.6414	.01017	.01417	.01049
Stddev	.00004	.0247	.00037	.00092	.00005	.00019	.0113	.00045	.0162	.00137	.00503	.00103
%RSD	.04024	.80252	3.1774	.43613	.53139	1.0807	1.0176	1.1376	.61144	13.450	35.478	9.8386

#1	.09009	3.0626	.01178	.21019	.01033	.01704	1.1218	.03912	2.6300	.00920	.01772	.00976
#2	.09004	3.0976	.01126	.21149	.01025	.01730	1.1058	.03975	2.6528	.01113	.01062	.01121

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .01980	.43952	.94058	.08707	.00909	.01721	.00935	.01708	.06553	.00990	.02201	.01745
Stddev	.00196	.03724	.07970	.00063	.00007	.00073	.00011	.00112	.01841	.00051	.00056	.00041
%RSD	9.8993	8.4738	8.4738	.72171	.75535	4.2486	1.1707	6.5344	28.087	5.1590	2.5319	2.3361

#1	.02119	.41319	.88422	.08663	.00904	.01773	.00927	.01629	.05252	.00954	.02162	.01774
#2	.01842	.46586	.99694	.08752	.00914	.01670	.00943	.01786	.07855	.01026	.02241	.01716

Check ?	Chk Fail	Chk Pass										
Value	.01500											
Range	30.000%											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3532.4	64061.	6849.4
Stddev	4.5	67.	17.0
%RSD	.12697	.10497	.24880

#1	3535.6	64109.	6861.4
#2	3529.3	64014.	6837.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00055	.00445	-.00280	.00034	.00042	-.00011	.00102	.02366	-.00014
Stddev	.00016	.00002	.00170	.00055	.00040	.00004	.00130	.00512	.00027
%RSD	29.248	.36132	60.846	161.30	95.929	35.392	127.62	21.616	193.76

#1	.00044	.00446	-.00159	-.00005	.00071	-.00008	.00010	.02005	-.00033
#2	.00066	.00444	-.00400	.00073	.00014	-.00014	.00194	.02728	.00005

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00029	.00033	.00144	.01535	.17556	.00221	.00185	.00029	.00009
Stddev	.00026	.00030	.00044	.00059	.00906	.00077	.00093	.00004	.00014
%RSD	89.152	90.636	30.770	3.8687	5.1611	35.016	50.024	15.052	153.24

#1	.00011	.00012	.00113	.01493	.16915	.00166	.00120	.00032	.00019
#2	.00047	.00054	.00175	.01577	.18197	.00275	.00251	.00026	-.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18495	.00041	-.00102	.00176	.02185	-.00042	.00637	.00340	.00727
Stddev	.00887	.00002	.00137	.00065	.00146	.00163	.00052	.00754	.01614
%RSD	4.7964	4.4173	135.14	37.008	6.6691	387.20	8.0932	222.05	222.05

#1	.17868	.00040	-.00199	.00130	.02082	.00073	.00600	-.00194	-.00414
#2	.19122	.00042	-.00005	.00222	.02288	-.00158	.00673	.00873	.01868

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00058	.00027	.00298	.00005	.00229	W -.05353	.00005	.00092	.00417
Stddev	.00130	.00008	.00241	.00010	.00233	.03651	.00027	.00042	.00142
%RSD	222.33	27.712	80.749	211.23	101.55	68.209	540.80	45.201	34.045

#1	-.00033	.00033	.00469	.00011	.00065	-.07935	-.00014	.00063	.00518
#2	.00150	.00022	.00128	-.00002	.00394	-.02771	.00024	.00122	.00317

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						.05000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3445.1	62716.	6743.1
Stddev	2.5	67.	80.4
%RSD	.07139	.10682	1.1920

#1	3443.3	62669.	6799.9
#2	3446.8	62763.	6686.3

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 2.8638	2.0919	F 2.6592	F 1.6405	F 1.1276	F 4.6159	.05537	2.1927	F 58.384
Stddev	.00003	.0018	.0367	.0077	.0015	.0248	.00020	.0096	.256
%RSD	.01075	.08356	1.3793	.47119	.13602	.53778	.35860	.43725	.43836

#1	.28640	2.0907	2.6333	1.6459	1.1287	4.5983	.05551	2.1995	58.203
#2	.28636	2.0931	2.6851	1.6350	1.1265	4.6335	.05523	2.1860	58.565

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Pass	None	Chk Fail
High Limit	.05750		2.2250	1.1050	1.1050	2.2499			55.500
Low Limit	.04275		1.7300	.87500	.86000	1.7900			44.750

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .31210	F .57210	F 1.1867	F .68830	1.1218	F 60.463	F 1.1681	F 61.105	F .61317
Stddev	.00106	.00161	.0069	.00320	.0045	.231	.0035	.226	.00227
%RSD	.33966	.28092	.58090	.46519	.40286	.38197	.29936	.37015	.37010

#1	.31285	.57324	1.1916	.69056	1.1186	60.299	1.1656	61.265	.61477
#2	.31135	.57097	1.1818	.68604	1.1250	60.626	1.1705	60.945	.61156

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Fail
High Limit	.11100	.55500	.05750	.28000		57.000	1.1400	56.500	.55000
Low Limit	.08800	.44500	.04275	.21500		44.500	.89000	46.000	.45000

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 1.1018	F 62.138	F .57146	F 11.422	F 1.5908	2.1071	F .57017	F 2.3309	F 11.262
Stddev	.0012	.293	.00145	.055	.0038	.0070	.00367	.0077	.061
%RSD	.10996	.47115	.25370	.48126	.23923	.33417	.64367	.33112	.53763

#1	1.1026	61.931	.57248	11.461	1.5935	2.1021	.56758	2.3255	11.219
#2	1.1009	62.345	.57043	11.383	1.5881	2.1121	.57277	2.3364	11.304

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	None	Chk Fail	Chk Fail	Chk Fail
High Limit	1.1000	56.000	.55500	11.100	.55000		.55499	2.2400	11.000
Low Limit	.90000	45.500	.44500	9.1000	.44500		.44000	1.7000	9.0000

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.100	2.1020	F 1.1322	F 1.2042	F 1.2117	2.0980	F 2.5048	F .62726	F .99809
Stddev	.130	.0169	.0034	.0005	.0006	.0142	.0101	.00039	.00476
%RSD	.53763	.80180	.29611	.04013	.04950	.67526	.40362	.06260	.47665

#1	24.008	2.0901	1.1298	1.2046	1.2121	2.0880	2.5119	.62754	1.0015
#2	24.191	2.1140	1.1345	1.2039	1.2113	2.1080	2.4976	.62698	.99473

Check ?	None	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail
High Limit			1.1100	1.2000	1.1100		2.3000	.55500	.55500
Low Limit			.90000	.80000	.90000		1.7000	.45000	.42500

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	F .61222
Stddev	.00064
%RSD	.10531

#1	.61177
#2	.61268

Check ?	Chk Fail
High Limit	.57500
Low Limit	.42500

Sample Name: LCS 280-279793/2-B Acquired: 6/5/2015 19:01:57 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 279893 TCLP 6010B

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	3335.0	59572.	6653.7
Stddev	9.7	157.	4.6
%RSD	.28963	.26417	.06857
#1	3341.8	59461.	6656.9
#2	3328.1	59683.	6650.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	.03643	.00641	.22904	.00415	.00000	-.00123	133.49	.00157
Stddev	.00019	.00025	.00130	.00200	.00013	.00007	.00096	.07	.00015
%RSD	122.04	.68913	20.289	.87290	3.1344	2065.4	77.616	.05130	9.4665

#1	.00029	.03661	.00733	.23045	.00406	-.00004	-.00056	133.54	.00167
#2	.00002	.03625	.00549	.22762	.00425	.00005	-.00191	133.44	.00146

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00420	.00624	.00732	.03709	5.6021	.02652	48.011	1.1389	.47382
Stddev	.00010	.00010	.00030	.00092	.0848	.00115	.087	.0005	.00402
%RSD	2.3413	1.6682	4.1297	2.4678	1.5142	4.3385	.18200	.04553	.84864

#1	.00413	.00632	.00753	.03644	5.5421	.02734	48.073	1.1392	.47667
#2	.00427	.00617	.00710	.03773	5.6621	.02571	47.949	1.1385	.47098

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	130.27	.04214	.01083	.01125	137.26	.00482	.01313	2.0896	4.4718
Stddev	.30	.00017	.00072	.00082	.38	.00057	.00026	.0069	.0148
%RSD	.23342	.40415	6.6103	7.2883	.27919	11.848	1.9529	.33039	.33039

#1	130.48	.04226	.01133	.01067	137.53	.00442	.01295	2.0848	4.4614
#2	130.05	.04202	.01032	.01183	136.99	.00523	.01331	2.0945	4.4823

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00143	2.3112	.00320	-.00058	-.00558	-.01158	.00001	.07127	.00370
Stddev	.00005	.0060	.00063	.00000	.00139	.00776	.00026	.00126	.00019
%RSD	3.6170	.26165	19.716	.64831	25.012	67.024	4249.4	1.7661	5.1903

#1	.00140	2.3155	.00276	-.00058	-.00459	-.00609	-.00017	.07216	.00357
#2	.00147	2.3069	.00365	-.00058	-.00656	-.01707	.00019	.07038	.00384

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3286.4	58894.	6621.2
Stddev	9.9	164.	27.4
%RSD	.30183	.27782	.41434

#1	3279.4	58778.	6601.8
#2	3293.4	59009.	6640.6

Sample Name: 280-69903-D-1-B SD@5 Acquired: 6/5/2015 19:06:57 Type: Unk

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment: 279893 TCLP 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00032	.00766	.00093	.04519	.00074	-.00014	-.00342	26.716	.00020
Stddev	.00042	.00057	.00109	.00056	.00042	.00004	.00479	.010	.00013
%RSD	133.71	7.3929	116.97	1.2385	57.608	26.836	140.04	.03604	66.993

#1	.00002	.00726	.00016	.04559	.00044	-.00012	-.00680	26.709	.00030
#2	.00061	.00806	.00170	.04479	.00104	-.00017	-.00003	26.723	.00011

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00094	.00057	.00021	.01062	1.2205	.00742	9.8366	.23215	.09322
Stddev	.00018	.00003	.00047	.00314	.0402	.00212	.0226	.00025	.00069
%RSD	19.248	5.9469	226.02	29.552	3.2972	28.516	.22968	.10839	.73846

#1	.00081	.00059	.00053	.01284	1.2490	.00592	9.8206	.23233	.09371
#2	.00106	.00055	-.00012	.00840	1.1920	.00891	9.8526	.23198	.09274

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.878	.00862	.00032	.00594	26.620	.00030	.00519	.42319	.90562
Stddev	.445	.00017	.00225	.00001	.191	.00186	.00291	.00642	.01375
%RSD	1.6560	1.9451	695.97	.16380	.71678	621.29	56.155	1.5182	1.5182

#1	26.564	.00874	-.00127	.00593	26.755	-.00102	.00313	.41864	.89590
#2	27.193	.00850	.00192	.00594	26.485	.00162	.00724	.42773	.91534

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00252	.45928	.00269	-.00052	-.00164	-.01277	-.00021	.01586	.00226
Stddev	.00145	.00111	.00081	.00045	.00207	.02711	.00090	.00130	.00080
%RSD	57.475	.24220	30.304	85.338	125.75	212.36	427.54	8.2136	35.491

#1	.00150	.45850	.00326	-.00021	-.00018	-.03194	.00043	.01494	.00169
#2	.00355	.46007	.00211	-.00084	-.00311	.00640	-.00085	.01678	.00283

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3420.2	61255.	6746.5
Stddev	20.4	1.	34.8
%RSD	.59585	.00230	.51594

#1	3405.8	61256.	6721.8
#2	3434.6	61254.	6771.1

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2.6877	2.0389	W 2.6546	1.6252	1.3208	4.2916	.05257	F 2.1558	172.85
Stddev	.00078	.0114	.0386	.0066	.0108	.0399	.00037	.0288	1.28
%RSD	.29072	.55734	1.4545	.40385	.81642	.93075	.70426	1.3375	.74326

#1	.26821	2.0470	2.6273	1.6299	1.3285	4.2634	.05231	2.1762	171.95
#2	.26932	2.0309	2.6819	1.6206	1.3132	4.3199	.05283	2.1354	173.76

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	.10000		500.00					.10000	
Low Limit	-.01000		3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.29874	.55552	F 1.0448	.65506	1.0666	63.615	1.1462	101.72	1.5965
Stddev	.00325	.00541	.0002	.00296	.0123	.426	.0057	.59	.0116
%RSD	1.0886	.97448	.01578	.45211	1.1563	.66969	.49645	.58195	.72859

#1	.30104	.55935	1.0449	.65296	1.0579	63.314	1.1421	101.31	1.5883
#2	.29644	.55170	1.0447	.65715	1.0754	63.916	1.1502	102.14	1.6048

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass					
High Limit			1.0000						
Low Limit			-.02000						

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.4955	173.32	.58375	W 11.597	1.4607	127.83	.57014	2.3199	12.541
Stddev	.0114	1.10	.00466	.131	.0132	.89	.01077	.0408	.234
%RSD	.76023	.63644	.79817	1.1262	.90421	.69675	1.8885	1.7603	1.8696

#1	1.5035	172.54	.58705	11.689	1.4700	128.46	.57775	2.3488	12.376
#2	1.4875	174.10	.58046	11.504	1.4513	127.20	.56253	2.2911	12.707

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				2.0000					
Low Limit				-1.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.839	W 2.0402	3.1252	1.1705	1.1761	1.9562	2.3955	.61109	.98602
Stddev	.502	.0270	.0261	.0145	.0103	.0357	.0003	.00555	.00674
%RSD	1.8696	1.3248	.83580	1.2413	.87725	1.8242	.01064	.90789	.68350

#1	26.484	2.0593	3.1067	1.1602	1.1688	1.9815	2.3953	.60717	.98125
#2	27.193	2.0211	3.1436	1.1808	1.1834	1.9310	2.3956	.61501	.99079

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		2.0000							
Low Limit		-.05000							

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.57857
Stddev	.00766
%RSD	1.3232

#1	.57315
#2	.58398

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69903-D-1-C MS Acquired: 6/5/2015 19:09:34 Type: Unk

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment: 279893 TCLP 6010B

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	3185.2	57782.	6631.9
Stddev	12.9	266.	18.0
%RSD	.40537	.46053	.27174
#1	3176.0	57970.	6644.6
#2	3194.3	57594.	6619.1

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2.7505	1.9891	W 2.6860	1.6206	1.2944	4.3729	.05248	F 2.0933	178.72
Stddev	.00012	.0040	.0005	.0110	.0058	.0269	.00010	.0007	1.16
%RSD	.04330	.20173	.01782	.67994	.44697	.61576	.18106	.03144	.64829

#1	.27496	1.9863	2.6857	1.6128	1.2903	4.3539	.05255	2.0928	177.91
#2	.27513	1.9920	2.6864	1.6284	1.2985	4.3920	.05242	2.0937	179.54

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	.10000		500.00					.10000	
Low Limit	-.01000		3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.30067	.54308	F 1.0729	.66648	1.0703	63.627	1.1417	103.58	1.6454
Stddev	.00086	.00266	.0044	.00210	.0017	.330	.0118	.29	.0097
%RSD	.28552	.49046	.41171	.31486	.16037	.51830	1.0352	.27832	.59197

#1	.30007	.54119	1.0697	.66499	1.0716	63.394	1.1333	103.38	1.6385
#2	.30128	.54496	1.0760	.66796	1.0691	63.861	1.1501	103.79	1.6523

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass					
High Limit			1.0000						
Low Limit			-.02000						

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.4840	178.63	.57407	W 11.303	1.4763	131.18	.55198	2.2540	12.757
Stddev	.0038	1.26	.00141	.025	.0074	.62	.00070	.0070	.118
%RSD	.25482	.70431	.24550	.21861	.50165	.47473	.12703	.31140	.92788

#1	1.4813	177.74	.57307	11.286	1.4711	130.74	.55248	2.2490	12.673
#2	1.4867	179.52	.57506	11.321	1.4816	131.62	.55149	2.2589	12.841

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				2.0000					
Low Limit				-1.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	27.300	1.9806	3.2267	1.1644	1.1677	1.8870	2.3747	.60874	1.0102
Stddev	.253	.0066	.0233	.0064	.0072	.0019	.0079	.00382	.0049
%RSD	.92788	.33136	.72114	.55123	.61674	.10274	.33196	.62779	.48031

#1	27.121	1.9759	3.2103	1.1599	1.1626	1.8856	2.3803	.60604	1.0068
#2	27.479	1.9852	3.2432	1.1690	1.1728	1.8884	2.3691	.61144	1.0136

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.58062
Stddev	.00337
%RSD	.58085

#1	.57824
#2	.58301

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69903-D-1-D MSD Acquired: 6/5/2015 19:11:55 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 279893 TCLP 6010B

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	3199.2	57105.	6519.5
Stddev	1.6	136.	48.9
%RSD	.04921	.23846	.74931
#1	3198.1	57201.	6554.0
#2	3200.3	57008.	6484.9

Sample Name: 280-69903-D-3-B Acquired: 6/5/2015 19:14:19 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 279893 TCLP 6010B

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00040	.00560	.00722	.17166	.00569	-.00013	-.00450	132.83	.00055
Stddev	.00053	.00019	.00201	.00045	.00033	.00010	.00022	2.45	.00025
%RSD	132.15	3.3938	27.910	.26269	5.8735	76.909	4.9371	1.8438	45.656

#1	.00077	.00547	.00579	.17135	.00545	-.00006	-.00466	131.10	.00072
#2	.00003	.00574	.00864	.17198	.00593	-.00021	-.00435	134.56	.00037

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00225	.00148	.00443	.01313	4.0671	.02681	43.653	.58238	.24711
Stddev	.00039	.00036	.00013	.00070	.0659	.00104	.233	.00187	.00132
%RSD	17.287	24.362	2.9808	5.3195	1.6192	3.8717	.53375	.32131	.53231

#1	.00198	.00174	.00453	.01263	4.0205	.02608	43.817	.58371	.24618
#2	.00253	.00123	.00434	.01362	4.1137	.02755	43.488	.58106	.24804

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	124.83	.02207	.01281	.01164	132.29	.00233	.01302	2.1399	4.5794
Stddev	2.20	.00007	.00117	.00108	.51	.00341	.00264	.0725	.1552
%RSD	1.7611	.31355	9.1195	9.2967	.38634	146.53	20.253	3.3886	3.3886

#1	123.27	.02202	.01364	.01240	132.65	.00474	.01489	2.0886	4.4697
#2	126.38	.02212	.01199	.01087	131.92	-.00008	.01116	2.1912	4.6891

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00019	2.5646	.00413	-.00055	-.00750	-.01476	-.00062	.03537	.00216
Stddev	.00076	.0450	.00045	.00014	.00202	.03378	.00028	.00018	.00180
%RSD	408.09	1.7556	10.783	25.720	26.972	228.93	45.634	.49484	83.564

#1	-.00072	2.5328	.00381	-.00065	-.00893	-.03864	-.00042	.03549	.00088
#2	.00035	2.5965	.00444	-.00045	-.00607	.00913	-.00081	.03525	.00343

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3203.8	58188.	6601.9
Stddev	8.8	84.	97.4
%RSD	.27614	.14377	1.4752

#1	3210.0	58247.	6670.8
#2	3197.5	58129.	6533.0

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00285	48.813	-.00139	.00181	-.00031	.00005	W .89629	.03013	-.00027	-.00105	.00105
Stddev	.00051	.328	.00042	.00037	.00019	.00004	.00429	.00080	.00017	.00035	.00004
%RSD	17.983	.67143	29.940	20.498	61.398	80.341	.47862	2.6533	62.137	33.821	3.6628

#1	.00321	48.581	-.00110	.00155	-.00044	.00008	.89932	.02956	-.00039	-.00130	.00108
#2	.00249	49.044	-.00169	.00208	-.00017	.00002	.89325	.03069	-.00015	-.00080	.00103

Check ?	None	Chk Pass	None	None	None	None	Chk Warn	None	None	None	None
Value							1.0000				
Range							-5.0000%				

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00250	46.750	.25445	.00190	-.01301	-.00167	-.00042	239.75	.00100	.00396	.00176
Stddev	.00055	.153	.07991	.00040	.00942	.00001	.00037	.86	.00040	.00032	.00060
%RSD	22.049	.32742	31.403	20.941	72.453	.35475	87.230	.35796	40.463	8.1401	34.100

#1	-.00289	46.642	.19795	.00219	-.01967	-.00166	-.00069	239.15	.00071	.00419	.00134
#2	-.00211	46.859	.31095	.00162	-.00634	-.00167	-.00016	240.36	.00129	.00373	.00219

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 4.2402	-.00798	.00277	-.01037	-.02220	-.00197	.00054	4.9381	-.01529	.00233	10.287
Stddev	.0276	.00278	.00284	.00766	.01639	.00020	.00002	.0024	.00019	.00036	.018
%RSD	.65140	34.899	102.53	73.852	73.852	9.9797	4.2303	.04970	1.2344	15.306	.17812

#1	4.2597	-.00995	.00477	-.00496	-.01061	-.00183	.00055	4.9399	-.01543	.00208	10.300
#2	4.2207	-.00601	.00076	-.01579	-.03379	-.00211	.00052	4.9364	-.01516	.00258	10.274

Check ?	Chk Fail	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	5.0000										
Range	-10.490%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00286	.00055	.06342
Stddev	.00007	.00048	.00692
%RSD	2.5818	86.523	10.909

#1	.00291	.00021	.05853
#2	.00281	.00089	.06831

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3294.7	58598.	6386.2
Stddev	7.0	324.	42.4
%RSD	.21310	.55305	.66403

#1	3299.7	58827.	6416.2
#2	3289.7	58369.	6356.2

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51036	.45653	F .85872	W .44877	.49331	W .44997	-.00248	4.8998	W .44786	.47780	.45451
Stddev	.00094	.00007	.00306	.00076	.00306	.00315	.00108	.0209	.00073	.00232	.00041
%RSD	.18475	.01559	.35642	.16958	.62035	.70031	43.380	.42689	.16365	.48611	.09018

#1	.51102	.45647	.85655	.44931	.49115	.44774	-.00324	4.8850	.44838	.47944	.45422
#2	.50969	.45658	.86088	.44823	.49547	.45220	-.00172	4.9145	.44734	.47615	.45480

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Warn	Chk Pass	Chk Warn	None	Chk Pass	Chk Warn	Chk Pass	Chk Pass
Value			1.0000	.50000		.50000			.50000		
Range			-10.490%	-10.000%		-10.000%			-10.000%		

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.45880	2.2876	48.766	.93780	20.158	.50586	F .42692	4.9547	.48019	F .89026	.93773
Stddev	.00117	.0279	.419	.00947	.016	.00041	.00103	.0092	.00149	.00013	.00302
%RSD	.25501	1.2182	.85862	1.0099	.08166	.08179	.24107	.18466	.31118	.01497	.32236

#1	.45797	2.2679	48.470	.93110	20.170	.50615	.42765	4.9482	.48125	.89036	.93987
#2	.45963	2.3073	49.062	.94450	20.147	.50557	.42619	4.9612	.47914	.89017	.93560

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass					
Value							.50000			1.0000	
Range							-10.490%			-10.490%	

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02181	F .86482	F .83890	4.5846	9.8110	F .84793	.45582	.00170	.49549	F .86778	-.00053
Stddev	.00350	.00529	.00656	.0510	.1093	.00248	.00338	.00296	.00145	.00376	.00046
%RSD	16.063	.61150	.78175	1.1136	1.1136	.29248	.74145	174.19	.29239	.43336	86.155

#1	.02429	.86108	.84354	4.5485	9.7338	.84968	.45343	.00379	.49446	.87044	-.00021
#2	.01933	.86856	.83427	4.6207	9.8883	.84617	.45821	-.00039	.49651	.86512	-.00086

Check ?	None	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass	Chk Fail	None
Value		1.0000	1.0000			1.0000				1.0000	
Range		-10.490%	-10.490%			-10.490%				-10.490%	

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.51315	.49738	.48551
Stddev	.00248	.00351	.00645
%RSD	.48322	.70493	1.3280

#1	.51490	.49986	.48095
#2	.51139	.49490	.49006

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3337.5	59222.	6360.8
Stddev	11.3	97.	43.2
%RSD	.33939	.16455	.67935

#1	3329.5	59290.	6391.4
#2	3345.5	59153.	6330.3

Sample Name: CCB Acquired: 6/5/2015 19:22:01 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00049	-.00054	-.00140	.00081	-.00043	-.00007	-.00062	-.00525	-.00028	.00015	.00020	-.00176
Stddev	.00007	.00008	.00077	.00002	.00027	.00004	.00076	.00072	.00003	.00021	.00019	.00004
%RSD	13.351	15.485	55.257	2.4238	62.573	59.355	123.97	13.632	10.252	132.51	96.008	2.4357

#1	.00045	-.00060	-.00085	.00080	-.00024	-.00004	-.00008	-.00575	-.00026	.00001	.00034	-.00179
#2	.00054	-.00048	-.00194	.00082	-.00061	-.00010	-.00115	-.00474	-.00030	.00030	.00007	-.00173

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00211	.24886	.00436	-.00386	.00005	.00010	.14517	.00025	-.00113	.00091	.01877	.00146
Stddev	.00127	.04179	.00052	.00203	.00007	.00032	.00321	.00044	.00239	.00003	.00193	.00072
%RSD	60.213	16.791	11.869	52.554	129.75	308.21	2.2099	173.00	210.95	2.8735	10.295	49.261

#1	-.00121	.27841	.00400	-.00242	.00000	-.00012	.14290	.00056	-.00282	.00090	.02013	.00197
#2	-.00301	.21931	.00473	-.00529	.00010	.00033	.14744	-.00006	.00056	.00093	.01740	.00095

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .01020	-.00338	-.00722	-.00106	.00007	.00240	-.00019	.00436	-.01345	-.00015	-.00024	.00155
Stddev	.00021	.00103	.00221	.00025	.00018	.00206	.00013	.00144	.00283	.00041	.00043	.00046
%RSD	2.0673	30.601	30.601	23.995	253.79	85.688	70.419	32.984	21.081	275.02	175.00	29.899

#1	.01035	-.00411	-.00879	-.00088	.00020	.00095	-.00028	.00334	-.01545	-.00044	.00006	.00122
#2	.01005	-.00265	-.00566	-.00124	-.00006	.00386	-.00010	.00537	-.01144	.00014	-.00055	.00188

Check ?	Chk Fail	Chk Pass										
High Limit	.00500											
Low Limit	-.00500											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3331.2	59855.	6334.3
Stddev	11.1	90.	57.6
%RSD	.33275	.15035	.90896

#1	3323.4	59791.	6375.0
#2	3339.1	59918.	6293.6

Sample Name: CCVL3312280 Acquired: 6/5/2015 19:24:23 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01005	.09779	.01689	.09249	.00949	.00082	.09929	.20393	.00436	.01046	.00987	.01308
Stddev	.00038	.00081	.00209	.00003	.00012	.00006	.00041	.00092	.00001	.00021	.00002	.00012
%RSD	3.7740	.83069	12.374	.03268	1.3015	6.7451	.40874	.45077	.17048	2.0363	.21818	.91056

#1	.00978	.09836	.01541	.09251	.00958	.00078	.09900	.20458	.00437	.01061	.00988	.01316
#2	.01031	.09721	.01837	.09247	.00941	.00086	.09958	.20328	.00436	.01031	.00985	.01299

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09249	3.2307	F .01345	.21186	.01085	.01778	1.1281	.04054	2.6812	.01110	.01779	.00827
Stddev	.00235	.0131	.00024	.00105	.00020	.00013	.0055	.00041	.0071	.00132	.00179	.00255
%RSD	2.5373	.40414	1.7858	.49724	1.8546	.75887	.49026	1.0062	.26472	11.899	10.063	30.801

#1	.09415	3.2215	.01328	.21260	.01100	.01787	1.1242	.04025	2.6762	.01017	.01906	.00647
#2	.09083	3.2400	.01362	.21111	.01071	.01768	1.1320	.04083	2.6863	.01204	.01653	.01007

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .02170	.46912	1.0039	.08983	.00948	.01920	.00993	.01590	F .03940	.01084	.02359	.01688
Stddev	.00076	.00594	.0127	.00005	.00002	.00020	.00001	.00070	.01089	.00028	.00000	.00079
%RSD	3.5114	1.2666	1.2666	.05497	.16965	1.0551	.10829	4.3918	27.634	2.6189	.00452	4.6613

#1	.02117	.46492	.99493	.08986	.00946	.01906	.00994	.01541	.04710	.01064	.02359	.01632
#2	.02224	.47332	1.0129	.08979	.00949	.01935	.00992	.01639	.03170	.01105	.02359	.01744

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass						
Value	.01500								.06000			
Range	30.000%								-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3390.4	60667.	6359.8
Stddev	8.1	189.	16.1
%RSD	.23996	.31207	.25333

#1	3384.6	60533.	6348.4
#2	3396.1	60801.	6371.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00052	.00217	.00053	.00005	.00014	-.00019	-.00068	.00974	-.00032
Stddev	.00114	.00009	.00122	.00056	.00027	.00014	.00040	.00132	.00009
%RSD	220.37	4.3724	230.18	1116.9	187.27	72.206	58.525	13.564	27.110

#1	-.00029	.00210	.00139	-.00035	.00033	-.00009	-.00040	.01067	-.00026
#2	.00132	.00223	-.00033	.00045	-.00005	-.00028	-.00096	.00880	-.00038

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.00062	-.00222	.01468	.28035	.00373	-.00285	.00041	-.00006
Stddev	.00014	.00016	.00012	.00089	.04819	.00050	.00877	.00003	.00004
%RSD	436.21	24.956	5.3534	6.0736	17.187	13.254	307.89	8.0433	74.844

#1	-.00007	.00073	-.00213	.01405	.31443	.00338	-.00905	.00044	-.00003
#2	.00013	.00051	-.00230	.01531	.24628	.00408	.00335	.00039	-.00009

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.13355	.00008	-.00048	.00293	.01352	-.00032	W .01142	.00933	.01997
Stddev	.01059	.00038	.00051	.00121	.00167	.00201	.00067	.01693	.03623
%RSD	7.9325	504.92	106.39	41.307	12.386	623.28	5.8880	181.44	181.44

#1	.14104	.00035	-.00012	.00208	.01471	.00110	.01189	-.00264	-.00565
#2	.12606	-.00019	-.00084	.00379	.01234	-.00175	.01094	.02130	.04559

Check ?	Chk Pass	Chk Warn	Chk Pass	None					
High Limit							.00750		
Low Limit							-.00750		

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00094	.00002	.00409	.00014	-.00067	W -.05221	-.00038	.00218	.00041
Stddev	.00045	.00009	.00030	.00011	.00027	.03388	.00091	.00007	.00134
%RSD	48.187	462.81	7.2256	77.073	39.441	64.903	237.57	3.3025	328.89

#1	-.00126	.00008	.00430	.00021	-.00086	-.07617	-.00102	.00212	-.00054
#2	-.00062	-.00004	.00388	.00006	-.00049	-.02825	.00026	.00223	.00136

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						.05000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3317.2	59594.	6287.8
Stddev	8.6	75.	73.3
%RSD	.26021	.12524	1.1654

#1	3311.1	59541.	6339.6
#2	3323.3	59647.	6236.0

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .30802	2.1561	F 2.7797	F 1.6947	F 1.1444	F 4.8309	.05624	2.1986	F 59.799
Stddev	.00089	.0043	.0952	.0083	.0109	.0863	.00174	.0242	1.110
%RSD	.28877	.19696	3.4260	.48727	.95245	1.7856	3.0932	1.1025	1.8568

#1	.30739	2.1531	2.7124	1.7006	1.1521	4.7699	.05501	2.2157	59.014
#2	.30865	2.1591	2.8470	1.6889	1.1366	4.8919	.05747	2.1814	60.584

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Pass	None	Chk Fail
High Limit	.05750		2.2250	1.1050	1.1050	2.2499			55.500
Low Limit	.04275		1.7300	.87500	.86000	1.7900			44.750

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .32869	F .58633	F 1.2118	F .72078	1.1404	F 61.579	F 1.1782	F 63.790	F .63965
Stddev	.00328	.00573	.0018	.00106	.0352	1.209	.0269	.102	.00078
%RSD	.99903	.97658	.14482	.14671	3.0873	1.9633	2.2800	.15974	.12252

#1	.33101	.59038	1.2130	.72153	1.1155	60.724	1.1593	63.718	.63910
#2	.32637	.58229	1.2105	.72003	1.1653	62.433	1.1972	63.862	.64021

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Fail
High Limit	.11100	.55500	.05750	.28000		57.000	1.1400	56.500	.55000
Low Limit	.08800	.44500	.04275	.21500		44.500	.89000	46.000	.45000

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 1.1216	F 63.583	F .58523	F 11.615	F 1.6803	2.1232	F .57539	F 2.3365	F 11.593
Stddev	.0107	1.006	.00662	.128	.0159	.0242	.00688	.0154	.263
%RSD	.95018	1.5823	1.1312	1.1012	.94878	1.1374	1.1952	.65867	2.2716

#1	1.1291	62.872	.58991	11.705	1.6916	2.1403	.58026	2.3473	11.406
#2	1.1141	64.295	.58055	11.524	1.6690	2.1061	.57053	2.3256	11.779

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	None	Chk Fail	Chk Fail	Chk Fail
High Limit	1.1000	56.000	.55500	11.100	.55000		.55499	2.2400	11.000
Low Limit	.90000	45.500	.44500	9.1000	.44500		.44000	1.7000	9.0000

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.808	2.1317	F 1.1440	F 1.2591	F 1.2614	2.1040	F 2.5769	F .66057	F 1.0737
Stddev	.564	.0232	.0214	.0017	.0010	.0276	.0140	.00373	.0025
%RSD	2.2716	1.0892	1.8687	.13442	.08362	1.3097	.54187	.56480	.23168

#1	24.410	2.1481	1.1289	1.2579	1.2607	2.1235	2.5868	.65793	1.0755
#2	25.207	2.1153	1.1591	1.2602	1.2622	2.0845	2.5670	.66320	1.0720

Check ?	None	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail
High Limit			1.1100	1.2000	1.1100		2.3000	.55500	.55500
Low Limit			.90000	.80000	.90000		1.7000	.45000	.42500

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	F .62589
Stddev	.01875
%RSD	2.9961

#1	.61263
#2	.63915

Check ?	Chk Fail
High Limit	.57500
Low Limit	.42500

Sample Name: LCS 280-279791/2-B Acquired: 6/5/2015 19:29:24 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 279895 TCLP 6010B/C

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	3194.3	56306.	6384.7
Stddev	7.6	35.	108.5
%RSD	.23737	.06206	1.7000
#1	3189.0	56330.	6461.4
#2	3199.7	56281.	6307.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00038	.00435	.00227	.00819	.00459	-.00006	-.00051	2.2856	.00030
Stddev	.00017	.00006	.00226	.00025	.00013	.00010	.00223	.0107	.00002
%RSD	43.983	1.2679	99.211	3.1064	2.8097	162.60	438.37	.46914	6.1285

#1	.00050	.00439	.00387	.00837	.00468	.00001	.00107	2.2780	.00031
#2	.00026	.00431	.00068	.00801	.00450	-.00013	-.00209	2.2931	.00029

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	.00041	-.00071	.02550	.37915	.00574	.10686	.02468	.00038
Stddev	.00025	.00016	.00055	.00109	.05203	.00072	.00495	.00033	.00020
%RSD	229.03	40.161	77.382	4.2711	13.724	12.510	4.6295	1.3265	52.251

#1	.00029	.00029	-.00032	.02627	.34236	.00625	.11036	.02445	.00024
#2	-.00007	.00053	-.00111	.02473	.41594	.00523	.10336	.02491	.00052

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.91328	.00027	.00724	.00271	.16733	-.00044	.00659	.21392	.45779
Stddev	.00161	.00007	.00044	.00099	.00418	.00049	.00162	.00681	.01458
%RSD	.17593	24.098	6.0195	36.416	2.4960	111.14	24.539	3.1851	3.1851

#1	.91214	.00032	.00693	.00341	.17029	-.00009	.00545	.21874	.46810
#2	.91441	.00022	.00755	.00201	.16438	-.00078	.00774	.20910	.44748

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00049	.01049	.00487	.00024	.00210	-.03293	.00086	.00802	.00154
Stddev	.00109	.00000	.00149	.00031	.00096	.00220	.00003	.00008	.00316
%RSD	220.94	.03908	30.612	128.29	45.823	6.6896	3.2197	.93616	205.13

#1	.00126	.01050	.00592	.00046	.00278	-.03449	.00088	.00797	-.00069
#2	-.00028	.01049	.00382	.00002	.00142	-.03137	.00084	.00807	.00377

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3356.2	60029.	6362.0
Stddev	.1	204.	1.5
%RSD	.00191	.33993	.02292

#1	3356.2	59885.	6361.0
#2	3356.2	60173.	6363.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00045	.08731	.00193	.01058	.00742	-.00022	.00054	3.3265	-.00032
Stddev	.00021	.00056	.00055	.00071	.00013	.00010	.00011	.0363	.00005
%RSD	46.910	.63738	28.743	6.7076	1.7611	45.187	20.168	1.0901	16.227

#1	.00060	.08692	.00153	.01008	.00751	-.00015	.00046	3.3009	-.00035
#2	.00030	.08771	.00232	.01109	.00733	-.00029	.00061	3.3522	-.00028

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00029	.00055	-.00002	.07572	.65770	.00437	.17484	.01411	-.00032
Stddev	.00006	.00002	.00021	.00190	.01037	.00068	.00325	.00002	.00026
%RSD	20.250	4.3111	1129.3	2.5075	1.5769	15.597	1.8580	.11601	82.027

#1	-.00025	.00053	-.00017	.07706	.65037	.00485	.17713	.01410	-.00014
#2	-.00034	.00056	.00013	.07437	.66504	.00388	.17254	.01412	-.00051

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.4558	.00037	.01926	.00209	.45877	-.00026	.01224	.53872	1.1529
Stddev	.0317	.00071	.00181	.00081	.01207	.00189	.00727	.02052	.0439
%RSD	2.1753	191.88	9.3960	38.909	2.6309	715.76	59.400	3.8098	3.8098

#1	1.4334	-.00013	.01798	.00267	.45024	-.00160	.00710	.52420	1.1218
#2	1.4782	.00087	.02054	.00152	.46731	.00107	.01739	.55323	1.1839

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	.02021	.00524	.00194	.00048	-.04681	.00068	.00188	.00291
Stddev	.00001	.00012	.00133	.00008	.00067	.01187	.00096	.00023	.00039
%RSD	8.2156	.61370	25.399	4.2229	137.97	25.366	141.83	12.442	13.389

#1	-.00011	.02012	.00430	.00189	.00001	-.03841	.00135	.00205	.00319
#2	-.00010	.02030	.00618	.00200	.00096	-.05521	.00000	.00172	.00264

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3397.6	60844.	6458.9
Stddev	12.1	117.	.8
%RSD	.35665	.19274	.01291

#1	3406.2	60927.	6458.3
#2	3389.0	60761.	6459.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00072	.00449	.00358	.01377	.00553	-.00011	-.00243	5.2319	-.00037
Stddev	.00013	.00004	.00339	.00054	.00002	.00006	.00248	.0075	.00010
%RSD	18.606	.86674	94.842	3.9531	.44318	48.926	101.95	.14302	25.469

#1	.00082	.00452	.00598	.01338	.00552	-.00007	-.00068	5.2371	-.00031
#2	.00063	.00447	.00118	.01415	.00555	-.00015	-.00419	5.2266	-.00044

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00014	.00066	.00117	.10092	.68536	.00341	.25545	.04283	-.00005
Stddev	.00024	.00006	.00047	.00270	.05828	.00085	.00217	.00018	.00020
%RSD	170.29	8.7807	40.511	2.6794	8.5039	24.810	.85067	.42070	380.54

#1	-.00003	.00070	.00084	.10283	.64414	.00401	.25391	.04270	-.00019
#2	.00030	.00061	.00151	.09901	.72657	.00281	.25699	.04295	.00009

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.7974	.00018	.00842	.00417	.97311	-.00121	.00898	.34904	.74694
Stddev	.0182	.00043	.00075	.00060	.00087	.00190	.00040	.00804	.01720
%RSD	1.0146	238.50	8.9084	14.473	.08960	157.23	4.5093	2.3024	2.3024

#1	1.8103	.00048	.00895	.00374	.97250	.00013	.00926	.35472	.75910
#2	1.7845	-.00012	.00789	.00460	.97373	-.00255	.00869	.34336	.73478

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00079	.02470	.00557	-.00004	.00197	-.04372	.00072	.00341	.00157
Stddev	.00089	.00031	.00124	.00043	.00187	.00884	.00005	.00025	.00088
%RSD	112.41	1.2440	22.218	1219.3	94.812	20.220	6.5680	7.3245	56.032

#1	-.00141	.02448	.00470	-.00034	.00065	-.03747	.00075	.00324	.00095
#2	-.00016	.02492	.00645	.00027	.00329	-.04997	.00069	.00359	.00219

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3392.8	60468.	6619.4
Stddev	2.5	105.	6.9
%RSD	.07284	.17335	.10427

#1	3391.1	60394.	6614.5
#2	3394.6	60542.	6624.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00058	.00206	.00441	.01319	.00569	-0.00009	-0.00128	4.3138	-0.00021
Stddev	.00040	.00049	.00108	.00014	.00024	.00003	.00046	.0393	.00002
%RSD	69.791	23.671	24.460	1.0792	4.2217	35.745	36.113	.90977	9.6568

#1	.00087	.00171	.00518	.01329	.00586	-0.00007	-0.00161	4.2861	-0.00019
#2	.00029	.00240	.00365	.01309	.00552	-0.00012	-0.00096	4.3416	-0.00022

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00034	.00042	-0.00108	.04305	.55578	.00477	.21159	.04750	-0.00023
Stddev	.00017	.00009	.00065	.00375	.04366	.00163	.00218	.00052	.00019
%RSD	49.463	21.991	60.276	8.7172	7.8554	34.112	1.0281	1.0996	82.321

#1	.00022	.00036	-0.00062	.04039	.52491	.00592	.21312	.04786	-0.00037
#2	.00046	.00049	-0.00155	.04570	.58666	.00362	.21005	.04713	-0.00010

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.3062	.00048	.00438	.00317	.82650	.00002	.00724	.33637	.71983
Stddev	.0172	.00024	.00237	.00150	.00484	.00132	.00009	.00183	.00393
%RSD	1.3144	49.561	54.094	47.468	.58567	6078.3	1.2015	.54527	.54527

#1	1.2941	.00065	.00270	.00211	.82992	-0.00091	.00731	.33766	.72260
#2	1.3183	.00031	.00606	.00423	.82307	.00096	.00718	.33507	.71705

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00013	.02133	.00446	-0.00012	.00137	-0.01082	.00003	.00575	.00351
Stddev	.00017	.00034	.00143	.00035	.00151	.00688	.00003	.00016	.00082
%RSD	125.00	1.6055	32.047	297.15	109.55	63.594	100.24	2.8611	23.281

#1	.00025	.02109	.00546	-0.00037	.00244	-0.00596	.00001	.00563	.00293
#2	.00002	.02157	.00345	.00013	.00031	-0.01569	.00005	.00587	.00409

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3425.4	60973.	6552.1
Stddev	1.0	103.	145.2
%RSD	.03046	.16950	2.2153

#1	3424.7	60900.	6654.7
#2	3426.2	61047.	6449.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00029	.05557	.00094	.00829	.00152	-.00023	.00062	1.3588	-.00030
Stddev	.00056	.00081	.00095	.00062	.00010	.00004	.00324	.0356	.00011
%RSD	190.22	1.4553	101.67	7.4940	6.2752	16.344	525.58	2.6176	35.229

#1	.00069	.05500	.00161	.00785	.00146	-.00020	.00291	1.3337	-.00023
#2	-.00010	.05614	.00026	.00872	.00159	-.00025	-.00168	1.3840	-.00038

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00028	.00025	-.00056	.04718	.36422	.00399	.07699	.00102	.00030
Stddev	.00002	.00005	.00052	.00014	.02427	.00054	.00040	.00002	.00007
%RSD	5.6562	21.631	93.148	.30523	6.6640	13.560	.52464	2.2736	24.743

#1	.00029	.00021	-.00019	.04707	.38138	.00437	.07670	.00103	.00025
#2	.00027	.00029	-.00093	.04728	.34705	.00361	.07727	.00100	.00035

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.4816	.00035	.01170	-.00022	.15711	.00027	.00401	.42141	.90182
Stddev	.0513	.00008	.00107	.00089	.00303	.00033	.00388	.02478	.05302
%RSD	3.4612	22.045	9.1470	398.06	1.9300	122.10	96.582	5.8792	5.8792

#1	1.4453	.00041	.01094	-.00085	.15496	.00050	.00675	.40389	.86433
#2	1.5179	.00030	.01245	.00041	.15925	.00004	.00127	.43893	.93932

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00046	.00616	.00492	.00134	.00249	-.01828	.00073	.00186	-.00107
Stddev	.00070	.00017	.00071	.00023	.00051	.02596	.00032	.00029	.00032
%RSD	151.39	2.7278	14.474	16.979	20.565	142.04	43.693	15.830	30.196

#1	-.00095	.00604	.00542	.00118	.00213	.00008	.00096	.00165	-.00130
#2	.00003	.00628	.00441	.00150	.00285	-.03663	.00050	.00207	-.00084

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3389.0	60220.	6414.9
Stddev	.6	179.	86.7
%RSD	.01636	.29752	1.3521

#1	3389.4	60346.	6476.3
#2	3388.6	60093.	6353.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00030	.02607	.00004	.00930	.00325	-.00009	-.00135	1.7550	-.00028
Stddev	.00021	.00068	.00330	.00005	.00012	.00002	.00226	.0243	.00002
%RSD	69.179	2.6073	9426.0	.52655	3.5523	29.114	167.25	1.3864	7.3085

#1	.00016	.02655	.00237	.00927	.00316	-.00010	.00025	1.7378	-.00029
#2	.00045	.02559	-.00230	.00934	.00333	-.00007	-.00295	1.7722	-.00026

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00034	.00045	-.00041	.04248	.50293	.00462	.14123	.04154	.00006
Stddev	.00043	.00019	.00079	.00154	.01371	.00169	.00132	.00046	.00043
%RSD	125.13	41.988	194.18	3.6368	2.7250	36.491	.93583	1.0970	734.55

#1	.00064	.00059	-.00096	.04357	.51263	.00581	.14217	.04122	.00036
#2	.00004	.00032	.00015	.04138	.49324	.00343	.14030	.04186	-.00025

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.6684	.00062	.00418	.00161	.39271	.00023	.00896	.25364	.54279
Stddev	.0182	.00034	.00355	.00143	.00264	.00041	.00057	.00583	.01249
%RSD	1.0894	55.360	85.026	88.726	.67224	176.12	6.3470	2.3005	2.3005

#1	1.6555	.00038	.00167	.00060	.39084	.00052	.00856	.24951	.53396
#2	1.6812	.00086	.00669	.00262	.39457	-.00006	.00936	.25776	.55162

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	.00903	.00230	.00054	.00112	.00427	.00002	.00429	.00073
Stddev	.00039	.00020	.00063	.00015	.00016	.02571	.00061	.00036	.00200
%RSD	268.19	2.1701	27.385	28.286	14.167	601.80	3824.6	8.3495	273.69

#1	-.00042	.00889	.00186	.00065	.00123	-.01391	-.00042	.00454	-.00068
#2	.00013	.00917	.00275	.00043	.00100	.02245	.00045	.00404	.00214

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3388.9	60249.	6436.9
Stddev	15.0	268.	18.3
%RSD	.44321	.44406	.28379

#1	3378.3	60439.	6424.0
#2	3399.5	60060.	6449.8

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00391	48.995	-.00265	-.00066	-.00037	.00000	F .89017	.03019	-.00034	-.00096	.00115	-.00339
Stddev	.00075	.468	.00555	.00012	.00067	.00002	.00191	.00415	.00023	.00026	.00010	.00071
%RSD	19.072	.95461	209.31	18.677	178.76	1599.0	.21471	13.755	69.310	26.834	8.6446	20.954

#1	.00444	48.664	-.00658	-.00075	-.00085	-.00001	.88882	.03313	-.00017	-.00115	.00122	-.00390
#2	.00338	49.325	.00127	-.00057	.00010	.00001	.89153	.02725	-.00050	-.00078	.00108	-.00289

Check ?	None	Chk Pass	None	None	None	None	Chk Fail	None	None	None	None	None
Value							1.0000					
Range							-10.490%					

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	46.766	.20666	.00489	-.01410	-.00172	-.00044	238.65	.00117	.00251	.00083	F 4.2177	-.00564
Stddev	.670	.00983	.00094	.00024	.00003	.00040	3.14	.00042	.00137	.00153	.0103	.00383
%RSD	1.4333	4.7546	19.237	1.7231	1.8896	89.981	1.3143	35.662	54.671	184.50	.24297	67.954

#1	46.292	.21361	.00423	-.01428	-.00169	-.00016	236.43	.00087	.00154	-.00025	4.2249	-.00835
#2	47.240	.19971	.00556	-.01393	-.00174	-.00072	240.87	.00146	.00348	.00191	4.2104	-.00293

Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None	Chk Fail	None
Value											5.0000	
Range											-10.490%	

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00398	-.02369	-.05069	-.00208	.00039	4.9417	-.01527	.00366	10.225	.00214	.00103	.05707
Stddev	.00397	.01218	.02607	.00007	.00011	.0141	.00002	.00190	.095	.00046	.00004	.00256
%RSD	99.915	51.434	51.434	3.4281	28.456	.28597	.13963	52.005	.92466	21.448	4.3367	4.4880

#1	.00117	-.01507	-.03226	-.00203	.00047	4.9517	-.01525	.00231	10.158	.00181	.00100	.05526
#2	.00679	-.03230	-.06913	-.00213	.00031	4.9317	-.01528	.00500	10.291	.00246	.00106	.05888

Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3321.2	57801.	6331.1
Stddev	1.0	194.	12.0
%RSD	.03126	.33563	.18988

#1	3322.0	57664.	6322.6
#2	3320.5	57938.	6339.6

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52094	.45795	F .86453	.45234	.49592	W .44799	-.00053	4.9057	.45255	.48347	.45994
Stddev	.00134	.00223	.00987	.00548	.00377	.00268	.00022	.0193	.00064	.01091	.00902
%RSD	.25692	.48612	1.1421	1.2111	.76111	.59723	41.645	.39238	.14204	2.2567	1.9610

#1	.52000	.45952	.87151	.45621	.49325	.44609	-.00068	4.8921	.45210	.49119	.46632
#2	.52189	.45637	.85755	.44846	.49859	.44988	-.00037	4.9193	.45301	.47576	.45356

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Warn	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			1.0000			.50000					
Range			-10.490%			-10.000%					

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46749	2.2835	48.636	.93253	20.487	.51034	F .42656	4.9225	.48534	.90617	.95592
Stddev	.00260	.0190	.357	.00673	.060	.00277	.00858	.0125	.01055	.02199	.01582
%RSD	.55690	.83235	.73357	.72157	.29348	.54265	2.0107	.25362	2.1737	2.4269	1.6554

#1	.46933	2.2700	48.384	.92777	20.444	.50838	.43263	4.9137	.49280	.92172	.96711
#2	.46564	2.2969	48.889	.93729	20.529	.51230	.42050	4.9313	.47788	.89062	.94473

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass					
Value							.50000				
Range							-10.490%				

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01129	F .88131	F .85294	4.5807	9.8027	F .85310	.45328	.00047	.49704	F .87269	-.03525
Stddev	.00259	.01993	.01739	.0388	.0831	.01499	.00313	.00081	.00242	.01665	.01472
%RSD	22.908	2.2617	2.0386	.84798	.84798	1.7569	.69132	174.25	.48732	1.9079	41.761

#1	.00946	.89540	.86524	4.6081	9.8614	.86370	.45106	-.00011	.49533	.88447	-.02484
#2	.01312	.86721	.84065	4.5532	9.7439	.84250	.45549	.00104	.49875	.86092	-.04566

Check ?	None	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass	Chk Fail	None
Value		1.0000	1.0000			1.0000				1.0000	
Range		-10.490%	-10.490%			-10.490%				-10.490%	

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.52493	.49915	.48766
Stddev	.00266	.00006	.00179
%RSD	.50701	.01249	.36607

#1	.52305	.49910	.48640
#2	.52681	.49919	.48892

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3366.0	59425.	6452.2
Stddev	9.5	497.	12.8
%RSD	.28217	.83608	.19798

#1	3359.2	59776.	6461.2
#2	3372.7	59074.	6443.2

Sample Name: CCB Acquired: 6/5/2015 19:52:51 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .00122	-.00048	-.00027	-.00018	-.00035	-.00014	-.00010	.00553	-.00037	.00036	.00016
Stddev	.00001	.00002	.00009	.00048	.00002	.00009	.00351	.00546	.00011	.00012	.00011
%RSD	.55389	3.1584	32.978	264.10	6.4555	68.859	3346.1	98.730	28.720	34.281	68.581

#1	.00122	-.00047	-.00021	.00016	-.00033	-.00007	.00238	.00939	-.00030	.00027	.00008
#2	.00123	-.00049	-.00033	-.00052	-.00036	-.00020	-.00259	.00167	-.00045	.00044	.00024

Check ?	Chk Warn	Chk Pass									
High Limit	.00100										
Low Limit	-.00100										

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00242	.00966	.21069	.00313	.00033	.00016	.00026	.09357	.00007	-.00040	.00061
Stddev	.00056	.00049	.04056	.00095	.00517	.00003	.00016	.01397	.00000	.00031	.00195
%RSD	23.125	5.1009	19.251	30.472	1560.4	18.840	60.751	14.931	.84839	78.770	319.94

#1	-.00202	.00931	.23937	.00246	.00399	.00018	.00037	.08369	.00007	-.00062	-.00077
#2	-.00281	.01001	.18201	.00381	-.00332	.00014	.00015	.10345	.00007	-.00018	.00199

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00904	.00047	F .00717	.02518	.05388	-.00054	.00011	.00439	-.00055	.00157	-.04259
Stddev	.00262	.00202	.00182	.00359	.00769	.00015	.00011	.00082	.00004	.00169	.00488
%RSD	28.980	434.07	25.368	14.274	14.274	27.116	94.905	18.595	7.7359	108.08	11.463

#1	.00719	.00190	.00846	.02264	.04845	-.00044	.00004	.00381	-.00052	.00277	-.04604
#2	.01090	-.00096	.00588	.02772	.05932	-.00065	.00019	.00496	-.00058	.00037	-.03913

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass							
High Limit			.00500								
Low Limit			-.00500								

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00026	.00093	.00042
Stddev	.00015	.00000	.00071
%RSD	60.219	.45282	168.19

#1	.00036	.00093	.00092
#2	.00015	.00094	-.00008

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3374.1	60284.	6477.4
Stddev	3.4	13.	61.7
%RSD	.09956	.02132	.95276

#1	3371.7	60293.	6433.8
#2	3376.5	60275.	6521.0

Sample Name: CCVL3312280 Acquired: 6/5/2015 19:55:12 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01088	.09837	.01339	.09204	.01001	.00078	.09810	.19988	.00437	.01024	.00983	.01223
Stddev	.00001	.00147	.00012	.00020	.00029	.00001	.00063	.00256	.00023	.00004	.00008	.00065
%RSD	.11197	1.4900	.85995	.21641	2.9168	1.1687	.64695	1.2795	5.1554	.42435	.84555	5.3392

#1	.01089	.09941	.01330	.09218	.00980	.00078	.09855	.19808	.00453	.01021	.00977	.01176
#2	.01087	.09733	.01347	.09190	.01022	.00077	.09765	.20169	.00421	.01027	.00989	.01269

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09360	3.2230	.01295	.21528	.01098	.01772	1.0926	.04014	2.6745	F .01206	.00644	.01011
Stddev	.00080	.0996	.00056	.00339	.00001	.00025	.0046	.00066	.0112	.00079	.00053	.00058
%RSD	.84999	3.0901	4.3094	1.5728	.12952	1.3937	.42535	1.6558	.41883	6.5385	8.2536	5.7342

#1	.09304	3.1526	.01255	.21767	.01097	.01790	1.0958	.04061	2.6665	.01150	.00606	.00970
#2	.09416	3.2934	.01334	.21288	.01099	.01755	1.0893	.03967	2.6824	.01262	.00681	.01052

Check ?	Chk Pass	Chk Fail	None	Chk Pass								
Value										.00900		
Range										30.000%		

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .02035	.44948	.96188	.08777	.00940	.01943	.00969	.01513	.06364	.01088	.02356	.01413
Stddev	.00032	.00464	.00994	.00018	.00025	.00044	.00005	.00074	.01291	.00031	.00067	.00173
%RSD	1.5846	1.0331	1.0331	.20462	2.6925	2.2895	.50018	4.8700	20.289	2.8575	2.8550	12.249

#1	.02012	.45276	.96891	.08790	.00922	.01911	.00965	.01565	.07277	.01066	.02308	.01536
#2	.02058	.44619	.95485	.08764	.00958	.01974	.00972	.01461	.05451	.01110	.02404	.01291

Check ?	Chk Fail	Chk Pass										
Value	.01500											
Range	30.000%											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3411.9	60610.	6454.4
Stddev	2.0	141.	31.7
%RSD	.05782	.23295	.49103

#1	3410.5	60511.	6476.8
#2	3413.3	60710.	6432.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00046	.00536	-.00079	.00815	.00297	-.00016	-.00243	3.0675	-.00008
Stddev	.00033	.00020	.00018	.00048	.00027	.00001	.00417	.0239	.00008
%RSD	70.688	3.6843	22.277	5.8624	8.9702	7.4726	171.43	.77838	95.056

#1	.00069	.00522	-.00067	.00781	.00278	-.00015	-.00539	3.0506	-.00014
#2	.00023	.00550	-.00092	.00849	.00316	-.00017	.00052	3.0844	-.00003

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00030	.00039	-.00033	.05745	.56981	.00415	.11980	.01636	.00011
Stddev	.00005	.00009	.00012	.00037	.02347	.00040	.00171	.00010	.00016
%RSD	15.761	22.955	36.190	.63566	4.1186	9.6450	1.4311	.58672	145.97

#1	.00034	.00045	-.00041	.05719	.55322	.00444	.11859	.01629	.00022
#2	.00027	.00032	-.00024	.05771	.58641	.00387	.12101	.01642	.00000

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.7577	.00008	.00990	.00073	.14072	-.00084	.00584	.52975	1.1337
Stddev	.0011	.00006	.00302	.00228	.00329	.00110	.00145	.01641	.0351
%RSD	.06053	76.574	30.462	312.35	2.3392	130.92	24.912	3.0975	3.0975

#1	1.7584	.00004	.01204	-.00088	.14304	-.00161	.00686	.51814	1.1088
#2	1.7569	.00012	.00777	.00235	.13839	-.00006	.00481	.54135	1.1585

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00029	.01709	.00427	.00066	.00162	-.04599	.00024	.00529	.00134
Stddev	.00150	.00018	.00028	.00048	.00071	.02189	.00044	.00018	.00182
%RSD	525.35	1.0653	6.4528	73.220	44.146	47.611	189.04	3.3263	135.28

#1	.00134	.01696	.00407	.00032	.00111	-.06147	.00055	.00541	.00006
#2	-.00077	.01722	.00446	.00100	.00212	-.03050	-.00008	.00517	.00263

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3372.9	60099.	6530.3
Stddev	4.9	91.	91.5
%RSD	.14417	.15168	1.4018

#1	3376.4	60164.	6465.6
#2	3369.5	60035.	6595.1

Sample Name: 280-69949-D-8-B SD@5 Acquired: 6/5/2015 20:00:32 Type: Unk

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment: 279895 TCLP 6010B/C

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00048	.00169	.00168	.00059	.00009	-.00005	-.00024	.61484	-.00024
Stddev	.00083	.00025	.00125	.00022	.00020	.00007	.00014	.00049	.00029
%RSD	173.23	15.009	74.414	36.363	230.71	142.86	57.057	.07987	121.80

#1	.00107	.00187	.00257	.00044	-.00006	.00000	-.00014	.61449	-.00044
#2	-.00011	.00151	.00080	.00074	.00023	-.00010	-.00033	.61519	-.00003

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00028	.00022	-.00151	.01924	.28995	.00403	.02011	.00348	.00013
Stddev	.00043	.00013	.00040	.00183	.05283	.00040	.00229	.00010	.00036
%RSD	151.30	60.813	26.686	9.5207	18.222	9.9268	11.370	2.8734	278.13

#1	.00058	.00031	-.00179	.02053	.32731	.00375	.01849	.00341	-.00013
#2	-.00002	.00012	-.00122	.01794	.25259	.00432	.02172	.00356	.00039

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.42400	.00054	.00337	.00113	.03794	-.00110	.00403	.11377	.24346
Stddev	.00135	.00036	.00164	.00184	.01259	.00019	.00073	.00419	.00897
%RSD	.31802	65.644	48.616	163.50	33.193	17.296	18.048	3.6847	3.6847

#1	.42304	.00029	.00221	-.00018	.04684	-.00123	.00454	.11080	.23711
#2	.42495	.00080	.00453	.00243	.02903	-.00096	.00351	.11673	.24980

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00199	.00350	.00477	-.00037	.00219	-.00407	.00002	.00309	.00372
Stddev	.00041	.00001	.00207	.00023	.00045	.01738	.00020	.00028	.00125
%RSD	20.493	.24931	43.458	64.091	20.491	426.85	1111.7	9.0351	33.730

#1	.00170	.00351	.00624	-.00053	.00251	.00822	-.00012	.00329	.00283
#2	.00228	.00350	.00331	-.00020	.00188	-.01636	.00016	.00289	.00461

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3384.5	60222.	6597.8
Stddev	5.6	66.	56.2
%RSD	.16588	.10974	.85179

#1	3380.6	60268.	6637.5
#2	3388.5	60175.	6558.0

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 25568	2.0959	W 2.7081	1.5293	1.1125	4.2344	.05347	F 2.1359	59.588
Stddev	.00007	.0063	.0026	.0001	.0011	.0377	.00045	.0053	.424
%RSD	.02915	.30308	.09471	.00359	.09716	.89029	.84874	.24838	.71237

#1	.25574	2.1004	2.7063	1.5293	1.1133	4.2078	.05315	2.1397	59.288
#2	.25563	2.0914	2.7099	1.5293	1.1118	4.2611	.05380	2.1322	59.888

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	.10000		500.00					.10000	
Low Limit	-.01000		3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.28289	.56444	F 1.0066	.62953	1.1023	59.082	1.1247	60.676	.61581
Stddev	.00119	.00096	.0021	.00210	.0115	.477	.0104	.149	.00034
%RSD	.42208	.16974	.20576	.33288	1.0411	.80708	.92750	.24596	.05581

#1	.28373	.56511	1.0080	.62805	1.0942	58.744	1.1173	60.571	.61605
#2	.28204	.56376	1.0051	.63101	1.1104	59.419	1.1321	60.782	.61556

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass					
High Limit			1.0000						
Low Limit			-.02000						

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0704	61.761	.56224	W 11.223	1.4466	2.1651	.55426	2.2551	11.404
Stddev	.0017	1.021	.00060	.020	.0049	.0311	.00420	.0134	.037
%RSD	.15905	1.6530	.10624	.18036	.33530	1.4363	.75766	.59183	.32228

#1	1.0716	61.039	.56266	11.237	1.4500	2.1871	.55723	2.2646	11.378
#2	1.0692	62.483	.56182	11.209	1.4431	2.1432	.55129	2.2457	11.430

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				2.0000					
Low Limit				-1.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.405	W 2.0586	1.1049	1.1840	1.1869	2.0498	2.4428	.62485	.93408
Stddev	.079	.0235	.0094	.0041	.0002	.0236	.0162	.00240	.00213
%RSD	.32228	1.1398	.84598	.34348	.01324	1.1507	.66164	.38331	.22762

#1	24.349	2.0752	1.0982	1.1812	1.1868	2.0665	2.4542	.62315	.93258
#2	24.461	2.0420	1.1115	1.1869	1.1870	2.0331	2.4314	.62654	.93559

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		2.0000							
Low Limit		-.05000							

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.58583
Stddev	.00420
%RSD	.71737

#1	.58286
#2	.58880

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69949-D-8-C MS Acquired: 6/5/2015 20:02:54 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 279895 TCLP 6010B/C

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	3219.0	57403.	6387.4
Stddev	4.8	46.	8.6
%RSD	.14862	.07957	.13463
#1	3222.4	57435.	6381.3
#2	3215.6	57371.	6393.4

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2.6071	2.0317	W 2.6223	1.5335	1.0938	4.2704	.05253	F 2.0912	58.891
Stddev	.00076	.0032	.0099	.0097	.0045	.0400	.00063	.0157	.578
%RSD	.29254	.15818	.37923	.63180	.41076	.93590	1.1973	.75095	.98098

#1	.26125	2.0340	2.6153	1.5404	1.0970	4.2987	.05298	2.1023	59.300
#2	.26017	2.0294	2.6293	1.5267	1.0906	4.2422	.05209	2.0801	58.483

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	.10000		500.00					.10000	
Low Limit	-.01000		3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.28582	.55319	F 1.0360	.63606	1.0871	58.148	1.1024	60.356	.61649
Stddev	.00189	.00210	.0016	.00491	.0006	.551	.0108	.162	.00008
%RSD	.66214	.37983	.15822	.77252	.05381	.94728	.98069	.26816	.01321

#1	.28716	.55467	1.0372	.63954	1.0875	58.537	1.1100	60.471	.61643
#2	.28448	.55170	1.0349	.63259	1.0867	57.758	1.0947	60.242	.61654

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass					
High Limit			1.0000						
Low Limit			-.02000						

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0558	61.297	.55343	W 11.017	1.4591	2.1259	.54194	2.1971	11.223
Stddev	.0043	.068	.00121	.069	.0084	.0267	.00556	.0199	.119
%RSD	.41141	.11061	.21888	.62326	.57888	1.2543	1.0254	.90448	1.0587

#1	1.0589	61.249	.55428	11.066	1.4651	2.1447	.54587	2.2112	11.139
#2	1.0527	61.345	.55257	10.968	1.4532	2.1070	.53801	2.1831	11.307

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				2.0000					
Low Limit				-1.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.018	W 2.0105	1.0861	1.1882	1.1907	1.9944	2.4451	.62542	.95673
Stddev	.254	.0162	.0101	.0050	.0005	.0116	.0135	.00109	.00006
%RSD	1.0587	.80337	.92859	.42403	.03998	.58305	.55242	.17398	.00673

#1	23.838	2.0219	1.0932	1.1918	1.1904	2.0026	2.4356	.62619	.95678
#2	24.198	1.9991	1.0790	1.1847	1.1910	1.9861	2.4547	.62465	.95669

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		2.0000							
Low Limit		-.05000							

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.57761
Stddev	.00623
%RSD	1.0779

#1	.57321
#2	.58201

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69949-D-8-D MSD Acquired: 6/5/2015 20:05:17 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 279895 TCLP 6010B/C

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	3251.3	57212.	6470.3
Stddev	5.7	162.	44.8
%RSD	.17517	.28324	.69175
#1	3247.3	57326.	6438.6
#2	3255.4	57097.	6501.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05256	.90905	.17778	.10254	.10539	.04569	-.00110	22.317	.04612
Stddev	.00026	.00171	.00197	.00067	.00065	.00041	.00057	.135	.00073
%RSD	.48852	.18828	1.1062	.65314	.61894	.90708	52.058	.60358	1.5753

#1	.05238	.90784	.17917	.10302	.10493	.04539	-.00151	22.221	.04664
#2	.05274	.91026	.17639	.10207	.10585	.04598	-.00070	22.412	.04561

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04791	.04597	.04745	.96849	20.238	.09954	20.484	.06723	.04290
Stddev	.00051	.00045	.00002	.00011	.162	.00267	.009	.00007	.00036
%RSD	1.0566	.98631	.04364	.01102	.79882	2.6826	.04408	.10351	.83922

#1	.04827	.04629	.04746	.96841	20.124	.10142	20.478	.06728	.04265
#2	.04755	.04565	.04743	.96856	20.353	.09765	20.491	.06718	.04316

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.519	.04746	1.8434	.10067	.13421	.08906	.18076	5.1094	10.934
Stddev	.080	.00018	.0248	.00248	.00172	.00061	.00321	.0217	.046
%RSD	.35419	.36873	1.3443	2.4610	1.2802	.68501	1.7755	.42393	.42393

#1	22.462	.04759	1.8609	.10243	.13299	.08950	.18303	5.1247	10.967
#2	22.575	.04734	1.8259	.09892	.13542	.08863	.17849	5.0941	10.901

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08722	.06451	.20325	.05047	.17739	.48663	.05287	.21319	.05135
Stddev	.00136	.00005	.00169	.00062	.00126	.02982	.00057	.00188	.00096
%RSD	1.5537	.08351	.83300	1.2254	.71107	6.1272	1.0808	.88225	1.8646

#1	.08626	.06447	.20445	.05090	.17650	.50771	.05328	.21186	.05067
#2	.08817	.06455	.20205	.05003	.17829	.46554	.05247	.21452	.05202

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3293.2	58416.	6362.4
Stddev	11.4	107.	26.3
%RSD	.34670	.18328	.41320

#1	3301.3	58491.	6380.9
#2	3285.2	58340.	6343.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00045	.01058	-.00110	.01358	.00385	-.00015	-.00226	1.5053	-.00024
Stddev	.00000	.00003	.00001	.00013	.00016	.00004	.00105	.0025	.00016
%RSD	.60289	.29645	.92677	.98618	4.1532	26.818	46.395	.16553	67.188

#1	.00045	.01055	-.00111	.01348	.00397	-.00017	-.00301	1.5035	-.00012
#2	.00045	.01060	-.00109	.01367	.00374	-.00012	-.00152	1.5071	-.00035

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00053	.00115	.00221	.19026	.69475	.00650	.13076	.01670	.00111
Stddev	.00022	.00028	.00004	.00003	.02350	.00133	.00168	.00009	.00014
%RSD	42.256	24.331	1.7819	.01655	3.3823	20.545	1.2873	.51205	12.461

#1	.00069	.00134	.00218	.19028	.71137	.00555	.13195	.01664	.00120
#2	.00037	.00095	.00224	.19024	.67814	.00744	.12957	.01676	.00101

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.0571	.00099	.06849	.00204	.39532	-.00016	.00807	.34085	.72942
Stddev	.0134	.00039	.00398	.00060	.00304	.00093	.00165	.01671	.03576
%RSD	.43826	39.804	5.8167	29.570	.76894	582.50	20.384	4.9029	4.9029

#1	3.0666	.00071	.07130	.00247	.39747	-.00082	.00691	.32903	.70413
#2	3.0476	.00126	.06567	.00162	.39317	.00050	.00924	.35267	.75471

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00105	.00733	.00443	.00002	.00118	-.02363	.00047	.01040	.00010
Stddev	.00053	.00000	.00140	.00043	.00085	.02023	.00030	.00058	.00209
%RSD	50.447	.00798	31.684	2285.0	71.736	85.636	63.195	5.5510	2149.6

#1	-.00142	.00733	.00542	-.00028	.00178	-.03794	.00026	.01080	-.00138
#2	-.00067	.00733	.00343	.00032	.00058	-.00932	.00069	.00999	.00157

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3362.6	59876.	6408.7
Stddev	5.7	117.	10.6
%RSD	.16976	.19467	.16606

#1	3358.6	59794.	6416.2
#2	3366.6	59959.	6401.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00030	.06197	-.00023	.14159	.00380	-.00013	-.00027	1.7701	-.00039
Stddev	.00037	.00005	.00036	.00072	.00026	.00005	.00137	.0264	.00001
%RSD	125.07	.08733	154.39	.50667	6.7928	38.133	502.73	1.4937	2.3264

#1	.00056	.06201	-.00048	.14210	.00362	-.00016	-.00124	1.7514	-.00039
#2	.00003	.06194	.00002	.14109	.00398	-.00009	.00069	1.7888	-.00040

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00031	.00084	-.00036	.05151	1.3600	.00393	.07296	.00288	.00014
Stddev	.00023	.00021	.00028	.00147	.0619	.00069	.00156	.00006	.00010
%RSD	72.448	25.400	76.018	2.8584	4.5545	17.525	2.1346	2.0557	74.471

#1	.00015	.00069	-.00056	.05047	1.3162	.00345	.07407	.00284	.00006
#2	.00047	.00099	-.00017	.05256	1.4038	.00442	.07186	.00292	.00021

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.8384	-.00020	.05903	.00024	.13084	-.00084	.00844	.41001	.87743
Stddev	.0270	.00025	.00106	.00011	.00248	.00117	.00188	.01079	.02309
%RSD	.95224	123.38	1.7893	47.454	1.8982	139.30	22.253	2.6321	2.6321

#1	2.8193	-.00037	.05978	.00016	.13260	-.00001	.00977	.41764	.89376
#2	2.8575	-.00003	.05828	.00032	.12909	-.00167	.00712	.40238	.86110

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00146	.00431	.00334	.00119	.00124	-.02980	.00003	.00493	.00259
Stddev	.00076	.00008	.00383	.00001	.00036	.05679	.00050	.00035	.00029
%RSD	51.662	1.8777	114.96	1.1276	29.071	190.59	1754.4	7.0902	11.278

#1	.00200	.00425	.00062	.00118	.00098	.01036	.00038	.00518	.00279
#2	.00093	.00437	.00605	.00120	.00149	-.06996	-.00033	.00469	.00238

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3383.6	60308.	6456.3
Stddev	.8	178.	63.1
%RSD	.02297	.29580	.97705

#1	3384.1	60434.	6500.9
#2	3383.0	60182.	6411.7

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .01090	47.749	k .00440	k -.00020	k -.00048	k .00010	kF .87334	k .02373	k -.00109	k -.00039	k .00075
Stddev	.01152	.128	.00256	.00016	.00044	.00002	.04119	.02514	.00130	.00122	.00008
%RSD	105.63	.26813	58.266	79.063	91.374	22.921	4.7169	105.94	119.05	310.42	10.450

#1	.00276	47.839	.00621	-.00009	-.00079	.00012	.90246	.04150	-.00017	-.00126	.00070
#2	k .01905	47.658	k .00259	k -.00031	k -.00017	k .00008	k .84421	k .00595	k -.00201	k .00047	k .00081

Check ?	None	Chk Pass	None	None	None	None	Chk Fail	None	None	None	None
Value							1.0000				
Range							-10.490%				

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00130	k 45.115	.21886	.00375	k -.01903	k -.00116	k -.00135	233.96	k .00141	k .00259	k .00627
Stddev	.00633	.339	.00384	.00100	.01391	.00067	.00052	.51	.00070	.00141	.00515
%RSD	485.92	.75075	1.7546	26.805	73.108	57.533	38.763	.21848	49.729	54.554	82.256

#1	-.00317	45.354	.21615	.00446	-.00919	-.00164	-.00098	234.32	.00091	.00359	.00262
#2	k .00578	k 44.875	.22158	.00304	k -.02886	k -.00069	k -.00172	233.60	k .00190	k .00159	k .00991

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	kF 4.2187	k -.01806	k .00040	k .00108	k .00231	k -.00120	.00045	k 5.0967	k .00024	k .00240	k 10.193
Stddev	.0593	.01585	.00674	.02882	.06168	.00266	.00000	.2254	.02260	.00041	.147
%RSD	1.4063	87.763	1693.3	2674.3	2674.3	221.91	.39163	4.4220	9581.9	16.931	1.4454

#1	4.2607	-.00685	.00517	-.01930	-.04131	-.00308	.00045	4.9373	-.01575	.00269	10.088
#2	k 4.1768	k -.02927	k -.00437	k .02146	k .04592	k .00068	.00045	k 5.2560	k .01622	k .00211	k 10.297

Check ?	Chk Fail	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	5.0000										
Range	-10.490%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	k .00009	k .00139	k .17897
Stddev	.00328	.00100	.17967
%RSD	3499.6	72.080	100.39

#1	.00241	.00210	.05192
#2	k -.00223	k .00068	k .30601

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3307.2	58073.	6469.9
Stddev	12.0	162.	4.3
%RSD	.36424	.27838	.06669

#1	3315.7	58187.	6466.8
#2	3298.7	57959.	6472.9

Sample Name: CCV-3305006 Acquired: 6/5/2015 20:18:13 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52298	.46384	F .87241	.46040	.49826	.45261	-.00199	4.9321	.45685	.48636	.46317	.47076
Stddev	.00039	.00220	.00016	.00156	.00237	.00291	.00159	.0218	.00255	.00131	.00026	.00041
%RSD	.07494	.47524	.01845	.33873	.47608	.64229	80.059	.44237	.55773	.26957	.05691	.08773

#1	.52326	.46539	.87252	.45930	.49659	.45056	-.00312	4.9167	.45865	.48543	.46298	.47106
#2	.52271	.46228	.87230	.46150	.49994	.45467	-.00086	4.9475	.45505	.48729	.46336	.47047

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value			1.0000									
Range			-10.490%									

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.2981	49.126	.94328	20.564	.51194	F .43039	4.9240	.48718	.90664	.96177	.00664	F .88990
Stddev	.0078	.283	.00883	.012	.00051	.00040	.0559	.00066	.00376	.00007	.00124	.00183
%RSD	.33854	.57590	.93585	.05647	.10025	.09188	1.1358	.13636	.41513	.00734	18.626	.20608

#1	2.2926	48.926	.93704	20.555	.51157	.43011	4.8845	.48671	.90930	.96182	.00751	.88860
#2	2.3036	49.326	.94952	20.572	.51230	.43067	4.9636	.48765	.90398	.96172	.00576	.89119

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Fail				
Value						.50000						1.0000
Range						-10.490%						-10.490%

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .86039	4.5662	9.7716	F .86531	.45877	.00232	.50267	F .88659	-.04450	.52363	.50097	.48235
Stddev	.00624	.0349	.0746	.00128	.00334	.00035	.00421	.00272	.01547	.00094	.00255	.00279
%RSD	.72501	.76341	.76341	.14788	.72804	14.866	.83774	.30734	34.761	.17871	.50903	.57902

#1	.85598	4.5415	9.7188	.86440	.45641	.00257	.50565	.88466	-.03356	.52297	.49916	.48038
#2	.86480	4.5908	9.8243	.86621	.46113	.00208	.49969	.88851	-.05544	.52429	.50277	.48433

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass
Value	1.0000			1.0000				1.0000				
Range	-10.490%			-10.490%				-10.490%				

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3375.7	59729.	6453.1
Stddev	1.1	191.	14.3
%RSD	.03181	.32033	.22138

#1	3376.4	59864.	6463.2
#2	3374.9	59594.	6443.0

Sample Name: CCB Acquired: 6/5/2015 20:20:42 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00032	-.00058	.00027	.00023	-.00093	-.00015	-.00127	-.00370	-.00045	.00016	.00027	-.00214
Stddev	.00071	.00019	.00087	.00003	.00017	.00005	.00075	.00446	.00015	.00012	.00006	.00017
%RSD	224.72	33.011	322.28	11.937	17.818	33.157	59.033	120.44	33.968	73.932	20.204	8.0798

#1	.00082	-.00072	-.00035	.00025	-.00082	-.00011	-.00181	-.00055	-.00056	.00008	.00023	-.00202
#2	-.00019	-.00045	.00089	.00021	-.00105	-.00018	-.00074	-.00686	-.00035	.00025	.00031	-.00226

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00101	.20208	.00396	-.00344	.00002	.00026	.07917	.00022	-.00224	.00208	.00754	-.00012
Stddev	.00104	.07141	.00020	.00274	.00006	.00000	.01624	.00039	.00097	.00003	.00196	.00004
%RSD	103.18	35.335	5.1241	79.636	315.95	.66220	20.511	178.00	43.171	1.3622	25.956	31.738

#1	-.00027	.25258	.00410	-.00150	-.00002	.00026	.09065	-.00006	-.00292	.00206	.00616	-.00014
#2	-.00174	.15159	.00382	-.00538	.00006	.00026	.06769	.00050	-.00155	.00210	.00892	-.00009

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .00518	.01906	.04079	-.00138	.00002	.00126	.00018	.00138	-.00101	.00047	.00099	.00278
Stddev	.00427	.01007	.02154	.00075	.00007	.00100	.00003	.00140	.01598	.00005	.00037	.00346
%RSD	82.464	52.817	52.817	54.620	277.69	78.923	14.575	101.26	1587.8	10.100	37.695	124.08

#1	.00216	.02618	.05602	-.00191	-.00002	.00056	.00016	.00039	.01029	.00050	.00073	.00523
#2	.00820	.01194	.02556	-.00085	.00007	.00197	.00020	.00237	-.01231	.00044	.00126	.00034

Check ?	Chk Fail	Chk Pass										
High Limit	.00500											
Low Limit	-.00500											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3403.9	60839.	6479.2
Stddev	.3	106.	39.8
%RSD	.00959	.17415	.61447

#1	3404.1	60764.	6451.1
#2	3403.6	60914.	6507.4

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01049	.09752	.01503	.09220	.01003	F .00070	.09669	.20223	.00442	.01040	.01009	.01291
Stddev	.00030	.00062	.00468	.00052	.00056	.00009	.00202	.00053	.00004	.00024	.00025	.00025
%RSD	2.8214	.63405	31.120	.56844	5.5943	13.220	2.0872	.26209	.91328	2.2742	2.5205	1.9175

#1	.01070	.09708	.01834	.09257	.01043	.00063	.09811	.20261	.00440	.01023	.00991	.01273
#2	.01028	.09795	.01173	.09183	.00963	.00076	.09526	.20186	.00445	.01056	.01027	.01308

Check ?	Chk Pass	Chk Fail	Chk Pass									
Value						.00100						
Range						-30.000%						

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09366	3.2051	F .01354	.21683	.01087	.01718	1.0923	.04027	2.6779	.00958	.00801	.01117
Stddev	.00339	.0509	.00066	.00267	.00001	.00032	.0133	.00075	.0301	.00145	.00010	.00028
%RSD	3.6146	1.5880	4.8958	1.2292	.05622	1.8367	1.2214	1.8551	1.1223	15.107	1.2712	2.4991

#1	.09127	3.2411	.01308	.21872	.01087	.01741	1.1017	.04080	2.6992	.01060	.00808	.01097
#2	.09605	3.1692	.01401	.21495	.01087	.01696	1.0828	.03974	2.6567	.00856	.00794	.01137

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01662	.45442	.97246	.08920	.00962	F .02035	.00954	.01709	F .02434	.01102	.02210	.01581
Stddev	.00212	.00713	.01526	.00154	.00006	.00035	.00007	.00016	.01722	.00035	.00047	.00150
%RSD	12.776	1.5697	1.5697	1.7247	.64102	1.7224	.71528	.92470	70.763	3.1652	2.1148	9.4603

#1	.01812	.45946	.98325	.09029	.00958	.02011	.00949	.01720	.03652	.01126	.02243	.01475
#2	.01512	.44938	.96167	.08812	.00967	.02060	.00959	.01698	.01216	.01077	.02177	.01687

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass				
Value						.01500			.06000			
Range						30.000%			-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3427.5	61313.	6523.4
Stddev	16.6	30.	43.1
%RSD	.48547	.04931	.66133

#1	3439.3	61334.	6492.9
#2	3415.7	61291.	6553.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00038	.00137	.00014	.00076	-.00013	-.00002	-.00050	-.00578	-.00031
Stddev	.00021	.00056	.00161	.00025	.00005	.00002	.00179	.00032	.00008
%RSD	53.718	41.017	1127.2	33.319	38.882	100.75	360.81	5.5356	24.810

#1	.00053	.00176	.00128	.00094	-.00010	-.00001	-.00176	-.00555	-.00037
#2	.00024	.00097	-.00099	.00058	-.00017	-.00004	.00077	-.00600	-.00026

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00029	.00018	-.00157	.02107	.19513	.00181	.00061	.00014	.00046
Stddev	.00062	.00030	.00011	.00073	.03968	.00048	.00145	.00005	.00011
%RSD	212.73	167.75	7.1730	3.4819	20.334	26.720	236.75	36.575	24.054

#1	.00073	.00039	-.00149	.02159	.22319	.00215	.00164	.00018	.00038
#2	-.00015	-.00003	-.00165	.02056	.16708	.00147	-.00041	.00010	.00054

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07509	.00042	-.00233	.00203	.00544	-.00076	.00695	.00538	.01151
Stddev	.01189	.00005	.00021	.00223	.00374	.00251	.00171	.01593	.03409
%RSD	15.834	12.906	9.0540	109.97	68.684	330.94	24.587	296.08	296.08

#1	.08349	.00046	-.00247	.00361	.00280	.00102	.00816	.01664	.03562
#2	.06668	.00038	-.00218	.00045	.00808	-.00253	.00574	-.00588	-.01259

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00005	.00008	.00467	.00009	.00096	-.03660	-.00042	.00225	.00049
Stddev	.00048	.00005	.00184	.00016	.00170	.01951	.00046	.00030	.00033
%RSD	938.37	59.320	39.384	174.07	177.28	53.315	109.42	13.225	67.091

#1	.00039	.00012	.00597	-.00002	-.00024	-.05040	-.00074	.00246	.00073
#2	-.00029	.00005	.00337	.00020	.00216	-.02280	-.00009	.00204	.00026

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3377.2	60970.	6491.6
Stddev	9.2	482.	1.5
%RSD	.27127	.79011	.02359

#1	3370.8	61310.	6492.7
#2	3383.7	60629.	6490.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05234	1.7522	.87992	.93021	2.0114	.04569	1.7988	48.362	.09173
Stddev	.00013	.0049	.00182	.00238	.0081	.00065	.0127	.194	.00051
%RSD	.25161	.27993	.20739	.25570	.40222	1.4205	.70601	.40132	.56068

#1	.05225	1.7556	.88121	.93189	2.0057	.04524	1.8078	48.224	.09210
#2	.05243	1.7487	.87863	.92852	2.0171	.04615	1.7899	48.499	.09137

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47272	F .17974	.23873	.92214	49.691	.95174	51.121	.50987	.90104
Stddev	.00091	.00094	.00075	.01025	.240	.00208	.177	.00138	.00290
%RSD	.19223	.52260	.31276	1.1121	.48290	.21875	.34627	.27162	.32149

#1	.47336	.18040	.23821	.91488	49.522	.95027	51.246	.51085	.90309
#2	.47207	.17908	.23926	.92939	49.861	.95322	50.995	.50889	.89899

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.891	.47182	9.3784	.47988	1.7192	.46280	1.7691	9.3198	19.944
Stddev	.295	.00187	.0406	.00479	.0040	.00059	.0062	.0665	.142
%RSD	.56861	.39592	.43240	.99861	.23156	.12852	.35008	.71359	.71359

#1	51.682	.47314	9.4070	.48327	1.7220	.46322	1.7735	9.2728	19.844
#2	52.099	.47050	9.3497	.47650	1.7164	.46238	1.7648	9.3669	20.045

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.7340	.92363	.99875	1.0020	F 1.7407	2.0548	.52505	.49264	.49869
Stddev	.0017	.00390	.00264	.0026	.0115	.0213	.00053	.00388	.00350
%RSD	.09666	.42262	.26463	.25650	.66142	1.0356	.10168	.78850	.70255

#1	1.7351	.92087	1.0006	1.0038	1.7488	2.0398	.52543	.49538	.49621
#2	1.7328	.92639	.99688	1.0002	1.7325	2.0699	.52468	.48989	.50117

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					2.2000				
Low Limit					1.7600				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3279.7	58247.	6422.0
Stddev	8.7	126.	47.5
%RSD	.26589	.21706	.73984

#1	3285.9	58158.	6455.6
#2	3273.5	58337.	6388.4

Sample Name: 280-70106-V-1-A Acquired: 6/5/2015 20:30:32 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280395 6010c

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00093	.00598	.00578	.26134	.11323	-.00013	-.00281	43.202	-.00019
Stddev	.00037	.00017	.00070	.00147	.00014	.00002	.00002	.260	.00006
%RSD	39.486	2.8445	12.163	.56267	.12767	14.957	.59163	.60073	33.744

#1	.00119	.00610	.00529	.26238	.11313	-.00015	-.00280	43.019	-.00023
#2	.00067	.00586	.00628	.26030	.11333	-.00012	-.00282	43.386	-.00014

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00076	.00084	.00047	.12859	11.466	.00438	10.756	.02169	-.00108
Stddev	.00009	.00042	.00016	.00186	.132	.00348	.009	.00033	.00015
%RSD	12.428	49.198	34.411	1.4440	1.1519	79.562	.08067	1.5004	13.472

#1	.00069	.00114	.00036	.12990	11.373	.00192	10.750	.02146	-.00119
#2	.00083	.00055	.00058	.12727	11.559	.00684	10.762	.02193	-.00098

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	90.438	.00556	.22162	.00614	4.5460	.00256	.00575	2.1827	4.6709
Stddev	.298	.00016	.00138	.00099	.0507	.00243	.00292	.0231	.0494
%RSD	.32951	2.8138	.62194	16.156	1.1162	94.717	50.771	1.0580	1.0580

#1	90.227	.00567	.22259	.00544	4.5819	.00428	.00782	2.1663	4.6360
#2	90.649	.00545	.22064	.00684	4.5101	.00085	.00369	2.1990	4.7059

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00491	.20210	.00254	-.00064	-.00119	-.03227	.00057	.00217	.00354
Stddev	.00042	.00080	.00062	.00016	.00046	.03691	.00091	.00059	.00092
%RSD	8.5966	.39792	24.305	24.466	38.907	114.41	159.26	27.037	25.888

#1	.00521	.20153	.00211	-.00053	-.00152	-.00616	-.00007	.00259	.00290
#2	.00461	.20267	.00298	-.00075	-.00086	-.05837	.00122	.00176	.00419

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3321.1	59033.	6488.3
Stddev	.9	167.	24.2
%RSD	.02814	.28338	.37313

#1	3320.5	58915.	6505.4
#2	3321.8	59151.	6471.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00021	.00257	.00174	.05131	.02252	-.00012	-.00197	8.7130	-.00040
Stddev	.00003	.00043	.00394	.00056	.00035	.00011	.00092	.0180	.00001
%RSD	16.597	16.573	226.19	1.0999	1.5341	92.729	46.963	.20703	2.0112

#1	.00019	.00227	.00452	.05091	.02228	-.00020	-.00262	8.7002	-.00039
#2	.00023	.00287	-.00104	.05171	.02277	-.00004	-.00131	8.7257	-.00040

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00020	.00064	-.00117	.03206	2.3677	.00507	2.2221	.00456	-.00041
Stddev	.00020	.00015	.00037	.00209	.0589	.00046	.0191	.00002	.00000
%RSD	102.22	23.146	31.105	6.5157	2.4873	9.1162	.85764	.45687	.39235

#1	.00005	.00053	-.00143	.03353	2.3260	.00540	2.2356	.00454	-.00041
#2	.00034	.00074	-.00092	.03058	2.4093	.00474	2.2087	.00457	-.00042

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.464	.00141	.04181	.00272	.89055	-.00008	.00785	.43840	.93817
Stddev	.074	.00002	.00181	.00051	.01451	.00042	.00284	.01606	.03436
%RSD	.39984	1.2157	4.3290	18.856	1.6293	500.82	36.194	3.6623	3.6623

#1	18.412	.00140	.04053	.00236	.88029	.00021	.00985	.44975	.96247
#2	18.516	.00143	.04309	.00308	.90081	-.00038	.00584	.42705	.91388

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00204	.04129	.00493	-.00036	.00048	W -.06921	.00066	.00232	.00335
Stddev	.00149	.00022	.00130	.00001	.00125	.01196	.00064	.00022	.00172
%RSD	73.095	.54473	26.392	1.7305	263.08	17.285	96.984	9.5260	51.303

#1	.00310	.04113	.00401	-.00036	-.00041	-.06075	.00112	.00217	.00213
#2	.00099	.04145	.00585	-.00035	.00136	-.07767	.00021	.00248	.00456

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3382.5	60088.	6458.1
Stddev	11.5	475.	9.1
%RSD	.33865	.79031	.14165

#1	3374.4	59753.	6464.6
#2	3390.6	60424.	6451.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05202	1.7233	.88663	1.1823	2.0776	.04478	F 1.7745	89.877	.09129
Stddev	.00057	.0033	.00140	.0008	.0249	.00093	.0010	1.102	.00030
%RSD	1.1023	.19338	.15763	.06345	1.1984	2.0864	.05684	1.2266	.33186

#1	.05242	1.7256	.88564	1.1828	2.0600	.04412	1.7752	89.098	.09150
#2	.05161	1.7209	.88762	1.1818	2.0952	.04544	1.7738	90.657	.09107

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46719	W .17400	.23772	1.0235	60.408	.94318	60.268	.52211	.89918
Stddev	.00135	.00042	.00025	.0167	.712	.00814	.012	.00012	.00391
%RSD	.28793	.24260	.10408	1.6320	1.1791	.86319	.02059	.02226	.43511

#1	.46814	.17430	.23754	1.0117	59.904	.93742	60.259	.52220	.90195
#2	.46624	.17371	.23789	1.0354	60.912	.94893	60.277	.52203	.89642

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	136.11	.46980	W 9.6747	.46976	6.2801	.45712	1.7465	11.222	24.014
Stddev	1.84	.00179	.0104	.00002	.0145	.00319	.0116	.159	.341
%RSD	1.3538	.38141	.10793	.00432	.23035	.69829	.66221	1.4204	1.4204

#1	134.81	.47107	9.6821	.46975	6.2903	.45938	1.7547	11.109	23.773
#2	137.41	.46853	9.6673	.46978	6.2699	.45486	1.7383	11.334	24.256

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.7084	1.1094	.98865	.99534	1.6625	2.0038	.52084	.48850	.49046
Stddev	.0118	.0133	.00063	.00180	.0047	.0166	.00035	.00080	.00932
%RSD	.69128	1.2026	.06387	.18037	.28030	.83008	.06627	.16451	1.9000

#1	1.7168	1.1000	.98820	.99407	1.6658	2.0156	.52108	.48793	.48387
#2	1.7001	1.1189	.98909	.99661	1.6592	1.9921	.52059	.48906	.49705

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3195.7	56923.	6354.1
Stddev	.5	106.	18.0
%RSD	.01539	.18634	.28320

#1	3195.3	56998.	6366.8
#2	3196.0	56848.	6341.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05424	1.7629	.91269	1.2139	2.1528	.04693	F 1.8214	92.474	.09367
Stddev	.00185	.0047	.00710	.0007	.0225	.00045	.0066	1.088	.00037
%RSD	3.4180	.26859	.77775	.05439	1.0453	.95567	.36123	1.1763	.39050

#1	.05555	1.7663	.91770	1.2134	2.1368	.04661	1.8260	91.705	.09341
#2	.05293	1.7596	.90767	1.2143	2.1687	.04725	1.8167	93.243	.09393

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47861	W .18139	.24560	1.0616	62.372	.97504	61.875	.53814	.92514
Stddev	.00196	.00106	.00006	.0039	.768	.01350	.111	.00041	.00471
%RSD	.40903	.58476	.02438	.36625	1.2318	1.3847	.17970	.07708	.50925

#1	.48000	.18214	.24565	1.0589	61.828	.96550	61.954	.53843	.92847
#2	.47723	.18064	.24556	1.0644	62.915	.98459	61.796	.53784	.92181

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	140.03	.48225	W 9.9797	.48331	6.4275	.47589	1.8187	11.760	25.167
Stddev	1.35	.00132	.0267	.00229	.0033	.00056	.0040	.078	.167
%RSD	.96108	.27291	.26733	.47449	.05102	.11727	.21947	.66330	.66330

#1	139.07	.48318	9.9985	.48493	6.4298	.47549	1.8215	11.705	25.049
#2	140.98	.48132	9.9608	.48169	6.4252	.47628	1.8159	11.815	25.285

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.7685	1.1469	1.0247	1.0268	1.7171	2.0928	.53750	.50437	.51213
Stddev	.0091	.0141	.0039	.0007	.0076	.0084	.00245	.00089	.00575
%RSD	.51504	1.2273	.38402	.07200	.44289	.40040	.45499	.17575	1.1223

#1	1.7750	1.1369	1.0219	1.0263	1.7225	2.0868	.53577	.50374	.50806
#2	1.7621	1.1569	1.0275	1.0273	1.7117	2.0987	.53923	.50499	.51619

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3236.7	57517.	6354.5
Stddev	.1	153.	11.9
%RSD	.00298	.26519	.18777

#1	3236.6	57625.	6363.0
#2	3236.7	57409.	6346.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05223	.87835	.17794	.35658	.20936	.04541	-.00408	62.075	.04609
Stddev	.00020	.00470	.00099	.00017	.00216	.00042	.00248	.620	.00006
%RSD	.39079	.53558	.55718	.04829	1.0297	.91401	60.883	.99890	.13876

#1	.05209	.88168	.17864	.35646	.20783	.04511	-.00584	61.637	.04605
#2	.05238	.87502	.17724	.35671	.21088	.04570	-.00232	62.514	.04614

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04716	.04473	.04848	1.0265	30.656	.10077	30.467	.07169	.04142
Stddev	.00079	.00019	.00007	.0110	.240	.00287	.091	.00009	.00004
%RSD	1.6815	.42443	.14131	1.0741	.78289	2.8514	.29781	.12327	.09382

#1	.04660	.04460	.04843	1.0187	30.487	.09873	30.531	.07163	.04140
#2	.04772	.04486	.04853	1.0343	30.826	.10280	30.403	.07176	.04145

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	108.46	.05192	W 2.0939	.09958	4.6303	.09196	.17984	6.8328	14.622
Stddev	1.25	.00041	.0090	.00070	.0302	.00103	.00723	.0824	.176
%RSD	1.1503	.79372	.42894	.70559	.65338	1.1154	4.0199	1.2056	1.2056

#1	107.58	.05163	2.0875	.09908	4.6089	.09123	.18496	6.7746	14.498
#2	109.34	.05221	2.1003	.10008	4.6517	.09268	.17473	6.8911	14.747

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09159	.24863	.20074	.04912	.16546	.47307	.05278	.20687	.05248
Stddev	.00098	.00181	.00021	.00021	.00061	.04177	.00017	.00116	.00251
%RSD	1.0718	.72667	.10451	.42836	.36983	8.8288	.31869	.56115	4.7910

#1	.09090	.24735	.20089	.04897	.16589	.44353	.05266	.20605	.05425
#2	.09229	.24991	.20059	.04927	.16502	.50260	.05290	.20770	.05070

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3263.2	58008.	6421.8
Stddev	4.7	10.	31.8
%RSD	.14265	.01658	.49578

#1	3260.0	58001.	6444.3
#2	3266.5	58015.	6399.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00050	.00666	.02488	.17499	.16486	-.00012	-.00445	16.843	-.00027
Stddev	.00016	.00018	.00121	.00123	.00044	.00013	.00097	.048	.00001
%RSD	31.355	2.6697	4.8756	.70195	.26621	105.51	21.680	.28224	2.8262

#1	.00061	.00679	.02574	.17412	.16455	-.00003	-.00377	16.809	-.00026
#2	.00039	.00653	.02402	.17586	.16517	-.00021	-.00513	16.877	-.00028

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00139	.00094	-.00133	18.998	8.0513	.00379	7.5382	.06389	-.00106
Stddev	.00007	.00008	.00004	.056	.0883	.00022	.0291	.00000	.00011
%RSD	4.9079	9.0635	2.7574	.29664	1.0965	5.8623	.38564	.00179	10.050

#1	.00134	.00100	-.00130	18.959	7.9889	.00394	7.5176	.06389	-.00098
#2	.00144	.00088	-.00135	19.038	8.1137	.00363	7.5587	.06389	-.00113

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.881	.00564	.06222	.00143	1.6014	-.00116	.00806	2.6244	5.6162
Stddev	.060	.00007	.00251	.00066	.0113	.00161	.00334	.0294	.0629
%RSD	.28942	1.2710	4.0374	45.936	.70685	138.80	41.493	1.1197	1.1197

#1	20.924	.00559	.06044	.00096	1.5934	-.00002	.01042	2.6036	5.5718
#2	20.838	.00569	.06399	.00189	1.6094	-.00231	.00569	2.6452	5.6607

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00057	.10123	.00587	-.00048	-.00209	-.02755	.00119	.00203	-.00049
Stddev	.00210	.00072	.00102	.00024	.00010	.00713	.00059	.00081	.00040
%RSD	369.62	.70970	17.423	51.168	4.8622	25.897	49.654	39.747	82.004

#1	-.00092	.10072	.00660	-.00065	-.00216	-.03259	.00077	.00260	-.00077
#2	.00205	.10174	.00515	-.00031	-.00202	-.02250	.00161	.00146	-.00021

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3349.4	60210.	6450.3
Stddev	.8	110.	17.7
%RSD	.02346	.18239	.27432

#1	3348.9	60287.	6437.8
#2	3350.0	60132.	6462.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00066	-.00524	.01758	.45801	.16470	-.00020	-.00244	98.003	-.00028
Stddev	.00040	.00021	.00223	.00059	.00021	.00000	.00085	.206	.00043
%RSD	59.992	4.0774	12.682	.12911	.13018	2.2985	34.964	.21039	156.53

#1	.00038	-.00539	.01916	.45843	.16455	-.00020	-.00304	97.857	.00003
#2	.00094	-.00509	.01600	.45760	.16485	-.00020	-.00184	98.148	-.00058

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00542	.00217	-.00109	35.607	17.483	.00565	17.493	.25431	-.00255
Stddev	.00004	.00002	.00030	.105	.103	.00129	.027	.00024	.00005
%RSD	.72343	.78130	27.596	.29486	.58993	22.801	.15666	.09523	1.9012

#1	.00539	.00216	-.00088	35.533	17.410	.00474	17.513	.25448	-.00251
#2	.00544	.00219	-.00130	35.681	17.556	.00656	17.474	.25414	-.00258

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.804	.00621	.18965	.00839	10.377	-.00039	.00815	2.4451	5.2324
Stddev	.276	.00024	.00042	.00110	.032	.00293	.00356	.0030	.0064
%RSD	1.0700	3.8743	.22190	13.147	.31298	753.06	43.742	.12171	.12171

#1	25.999	.00604	.18935	.00917	10.400	-.00246	.00563	2.4472	5.2369
#2	25.608	.00638	.18995	.00761	10.354	.00168	.01067	2.4430	5.2279

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00096	.42004	.00846	-.00095	-.00528	W -.06034	.00444	.01047	.00132
Stddev	.00093	.00084	.00113	.00047	.00072	.02042	.00002	.00044	.00111
%RSD	96.762	.19949	13.320	49.419	13.670	33.845	.55000	4.1738	84.212

#1	.00030	.41945	.00926	-.00062	-.00578	-.04590	.00446	.01016	.00211
#2	.00162	.42064	.00766	-.00128	-.00477	-.07478	.00442	.01078	.00054

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3289.5	59171.	6472.1
Stddev	4.3	40.	62.1
%RSD	.13070	.06741	.95988

#1	3292.5	59199.	6516.0
#2	3286.5	59143.	6428.2

Sample Name: CCVH-3304613 Acquired: 6/5/2015 20:48:28 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .01159	47.300	k .00051	k .00090	k -.00012	k .00003	kF .86540	k .01458	k -.00120	k -.00041	k .00099
Stddev	.01103	.338	.00544	.00016	.00028	.00009	.02753	.01575	.00109	.00114	.00017
%RSD	95.179	.71405	1060.7	18.127	236.99	301.03	3.1814	108.02	91.199	274.41	17.217

#1	k .01938	47.061	k .00436	k .00078	k -.00032	k .00009	k .84594	k .00344	k -.00197	k .00039	k .00111
#2	.00379	47.538	-.00333	.00101	.00008	-.00003	.88487	.02571	-.00042	-.00122	.00087

Check ?	None	Chk Pass	None	None	None	None	Chk Fail	None	None	None	None
Value							1.0000				
Range							-10.490%				

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00161	k 45.132	.25710	.00363	k -.02198	k -.00103	k -.00080	233.16	k .00130	k .00340	k .00594
Stddev	.00651	.901	.03746	.00187	.00967	.00067	.00085	1.39	.00050	.00145	.00624
%RSD	403.79	1.9964	14.572	51.464	43.999	64.435	106.73	.59613	38.466	42.529	105.04

#1	k .00622	k 44.495	.23061	.00495	k -.02882	k -.00056	k -.00140	232.18	k .00165	k .00442	k .01035
#2	-.00299	45.769	.28359	.00231	-.01514	-.00150	-.00020	234.14	.00094	.00238	.00153

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	kF 4.1668	k -.01512	k -.00184	k -.00568	k -.01215	k -.00203	.00045	k 4.9759	k -.00076	k .00078	k 9.9289
Stddev	.0222	.01442	.01096	.00080	.00171	.00021	.00024	.1720	.02116	.00199	.0480
%RSD	.53374	95.376	596.82	14.043	14.043	10.167	53.221	3.4572	2788.7	256.07	.48296

#1	k 4.1511	k -.02532	k -.00959	k -.00512	k -.01095	k -.00189	.00028	k 5.0975	k .01420	k -.00063	k 9.8950
#2	4.1825	-.00492	.00591	-.00624	-.01336	-.00218	.00061	4.8543	-.01572	.00219	9.9628

Check ?	Chk Fail	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	5.0000										
Range	-10.490%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	k -.00006	k .00104	k .18553
Stddev	.00344	.00045	.17734
%RSD	6094.7	43.247	95.585

#1	k -.00249	k .00072	k .31092
#2	.00237	.00136	.06013

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3333.8	59112.	6422.5
Stddev	1.9	76.	40.8
%RSD	.05613	.12915	.63588

#1	3332.5	59166.	6451.3
#2	3335.1	59058.	6393.6

Sample Name: CCB Acquired: 6/5/2015 20:53:33 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	-.00036	.00155	.00018	-.00049	-.00009	.00011	-.00654	-.00033	.00020	.00024	-.00220
Stddev	.00023	.00055	.00277	.00043	.00024	.00004	.00162	.00044	.00029	.00018	.00008	.00030
%RSD	285.79	150.91	178.59	238.10	49.394	45.355	1442.9	6.6475	86.969	89.436	31.727	13.595

#1	.00024	.00002	.00352	-.00012	-.00032	-.00012	.00126	-.00624	-.00053	.00007	.00018	-.00242
#2	-.00008	-.00075	-.00041	.00049	-.00066	-.00006	-.00104	-.00685	-.00013	.00033	.00029	-.00199

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00441	.21093	.00359	-.00328	.00008	.00029	.09850	-.00020	.00101	.00087	.00868	-.00014
Stddev	.00028	.03867	.00114	.00087	.00008	.00020	.00397	.00036	.00033	.00123	.00379	.00084
%RSD	6.4435	18.335	31.814	26.561	103.01	67.220	4.0295	178.39	33.207	140.66	43.656	589.92

#1	-.00461	.23828	.00440	-.00389	.00013	.00015	.10130	.00005	.00124	.00000	.01136	.00045
#2	-.00421	.18358	.00279	-.00266	.00002	.00043	.09569	-.00046	.00077	.00174	.00600	-.00073

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .01081	.00350	.00749	-.00084	.00009	.00305	.00006	.00248	.00191	.00018	.00065	.00145
Stddev	.00340	.00475	.01016	.00058	.00008	.00125	.00021	.00028	.01448	.00044	.00073	.00175
%RSD	31.442	135.60	135.60	69.250	90.831	41.148	348.28	11.198	759.57	252.78	113.16	120.51

#1	.00841	.00686	.01468	-.00125	.00015	.00216	.00021	.00267	.01215	.00049	.00013	.00269
#2	.01322	.00014	.00031	-.00043	.00003	.00393	-.00009	.00228	-.00833	-.00014	.00117	.00021

Check ?	Chk Fail	Chk Pass										
High Limit	.00500											
Low Limit	-.00500											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3338.8	60340.	6326.9
Stddev	.1	232.	48.2
%RSD	.00230	.38507	.76113

#1	3338.7	60176.	6361.0
#2	3338.8	60505.	6292.9

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01052	.09593	.01348	.09164	.00989	.00083	.09635	.19321	.00434	.01014	.00985	.01303
Stddev	.00013	.00017	.00078	.00057	.00002	.00008	.00243	.00577	.00022	.00003	.00039	.00038
%RSD	1.2809	.17253	5.8091	.61830	.17073	9.5056	2.5205	2.9868	5.1382	.28269	3.9862	2.8852

#1	.01061	.09581	.01293	.09124	.00987	.00078	.09807	.19729	.00418	.01016	.00958	.01330
#2	.01042	.09605	.01403	.09204	.00990	.00089	.09464	.18913	.00450	.01012	.01013	.01276

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09059	3.2203	.01149	.20830	.01059	.01688	1.0926	.04001	2.6413	.00805	.01079	.00731
Stddev	.00048	.0782	.00201	.00019	.00005	.00027	.0045	.00041	.0067	.00006	.00556	.00059
%RSD	.53123	2.4272	17.507	.09027	.48495	1.5859	.40798	1.0172	.25247	.74498	51.568	8.0551

#1	.09025	3.2756	.01291	.20844	.01055	.01707	1.0958	.03973	2.6366	.00809	.00686	.00773
#2	.09093	3.1650	.01006	.20817	.01063	.01669	1.0895	.04030	2.6461	.00801	.01473	.00690

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01946	.46656	.99844	.08773	.00956	.01923	.00958	.01640	F .03497	.01041	.02163	.01698
Stddev	.00163	.00284	.00608	.00129	.00012	.00125	.00030	.00021	.02648	.00070	.00014	.00125
%RSD	8.3777	.60915	.60915	1.4680	1.2898	6.4833	3.1736	1.2976	75.731	6.7580	.64509	7.3468

#1	.01831	.46455	.99414	.08682	.00965	.01834	.00937	.01625	.05370	.01091	.02153	.01609
#2	.02062	.46857	1.0027	.08865	.00947	.02011	.00980	.01655	.01624	.00991	.02173	.01786

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass							
Value									.06000			
Range									-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3436.9	61879.	6438.7
Stddev	6.9	66.	13.3
%RSD	.20078	.10588	.20644

#1	3432.0	61926.	6429.3
#2	3441.8	61833.	6448.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0033	.00255	.00015	.00039	.00031	.00002	.00025	.01124	-0.00009
Stddev	.00004	.00002	.00197	.00036	.00003	.00008	.00120	.00058	.00018
%RSD	12.464	.61749	1314.5	91.234	8.7259	449.44	476.29	5.1497	205.36

#1	-0.0030	.00256	.00154	.00064	.00029	-0.0004	-0.0060	.01083	-0.0022
#2	-0.0036	.00254	-.00124	.00014	.00033	.00007	.00110	.01165	.00004

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00034	.00057	-0.00136	.01502	.23120	.00255	.00559	.00029	.00029
Stddev	.00006	.00011	.00049	.00054	.02113	.00171	.00360	.00003	.00028
%RSD	17.073	19.699	36.057	3.5654	9.1390	67.157	64.487	11.663	96.277

#1	.00030	.00049	-.00170	.01464	.21626	.00376	.00814	.00032	.00009
#2	.00038	.00064	-.00101	.01540	.24614	.00134	.00304	.00027	.00049

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07279	.00019	.00057	.00182	.00560	-0.00051	.00625	-.01271	-.02719
Stddev	.00858	.00050	.00044	.00019	.00059	.00095	.00001	.00744	.01591
%RSD	11.788	261.07	76.165	10.513	10.579	186.76	.17614	58.520	58.520

#1	.07886	-.00016	.00026	.00195	.00602	-.00118	.00626	-.00745	-.01594
#2	.06673	.00054	.00088	.00168	.00518	.00016	.00624	-.01796	-.03844

Check ?	Chk Pass	None							
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0020	.00026	W .00509	.00011	.00292	-0.01334	.00103	.00130	.00220
Stddev	.00028	.00009	.00339	.00062	.00254	.07213	.00025	.00025	.00157
%RSD	144.06	33.285	66.563	575.59	86.840	540.55	24.520	19.122	71.282

#1	.00000	.00032	.00749	-.00033	.00472	-.06435	.00086	.00113	.00331
#2	-.00039	.00020	.00269	.00055	.00113	.03766	.00121	.00148	.00109

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.00500						
Low Limit			-.00500						

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3399.0	61806.	6544.9
Stddev	9.9	188.	22.9
%RSD	.29204	.30434	.35036

#1	3392.0	61939.	6561.1
#2	3406.0	61673.	6528.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05155	1.7517	.87854	.91680	1.9871	.04563	1.7944	47.822	.09053
Stddev	.00060	.0041	.00465	.00514	.0150	.00025	.0102	.360	.00087
%RSD	1.1631	.23491	.52945	.56115	.75366	.54636	.56872	.75336	.96612

#1	.05197	1.7546	.88183	.92044	1.9765	.04546	1.8017	47.567	.09115
#2	.05112	1.7488	.87525	.91316	1.9977	.04581	1.7872	48.077	.08991

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46534	F .18095	.23621	.92335	49.377	.94431	49.761	.50029	F .89845
Stddev	.00283	.00116	.00027	.01043	.480	.00993	.117	.00092	.00427
%RSD	.60767	.63881	.11593	1.1295	.97218	1.0516	.23527	.18349	.47496

#1	.46734	.18177	.23641	.91597	49.037	.93729	49.844	.50094	.90147
#2	.46335	.18014	.23602	.93072	49.716	.95133	49.679	.49964	.89543

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail					
High Limit		.05750							1.1000
Low Limit		.04275							.90000

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.195	.46561	9.2478	.47396	1.7138	.45436	1.7391	9.1933	19.674
Stddev	.685	.00264	.0463	.00319	.0256	.00263	.0052	.1410	.302
%RSD	1.3376	.56720	.50078	.67289	1.4952	.57960	.29749	1.5341	1.5341

#1	50.711	.46748	9.2806	.47622	1.7319	.45623	1.7428	9.0936	19.460
#2	51.679	.46375	9.2151	.47171	1.6956	.45250	1.7354	9.2930	19.887

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.7188	.92049	.98003	.98037	F 1.7225	2.0466	.51334	.48587	.49335
Stddev	.0100	.00597	.00535	.00183	.0165	.0243	.00083	.00316	.00539
%RSD	.57966	.64840	.54562	.18627	.95594	1.1852	.16077	.65079	1.0933

#1	1.7259	.91627	.98381	.98167	1.7342	2.0294	.51276	.48811	.48953
#2	1.7118	.92471	.97625	.97908	1.7109	2.0638	.51392	.48363	.49716

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					2.2000				
Low Limit					1.7600				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3307.3	59699.	6529.0
Stddev	1.2	90.	51.8
%RSD	.03532	.15089	.79348

#1	3306.5	59635.	6565.7
#2	3308.2	59762.	6492.4

Sample Name: 280-70130-A-1-A Acquired: 6/5/2015 21:03:23 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280387 6010c

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00060	.05405	.00211	.25334	.05854	-0.00005	-0.00233	12.128	-0.00007
Stddev	.00067	.00080	.00152	.00282	.00017	.00002	.00136	.014	.00004
%RSD	111.51	1.4746	71.992	1.1140	.28356	29.028	58.278	.11811	56.913

#1	.00013	.05461	.00103	.25534	.05842	-0.00006	-0.00137	12.118	-0.00004
#2	.00108	.05349	.00318	.25135	.05866	-0.00004	-0.00329	12.138	-0.00010

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01909	.00055	-0.00076	11.937	1.4216	.00781	6.6171	3.7833	-0.00035
Stddev	.00034	.00000	.00032	.034	.0527	.00100	.0345	.0042	.00033
%RSD	1.7910	.78887	41.873	.28716	3.7049	12.741	.52187	.11193	92.408

#1	.01933	.00055	-0.00053	11.913	1.3843	.00852	6.5927	3.7863	-0.00058
#2	.01885	.00055	-0.00098	11.961	1.4588	.00711	6.6415	3.7803	-0.00012

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	57.059	.00673	.01105	.00449	12.447	-0.00027	.00811	10.020	21.443
Stddev	.736	.00017	.00065	.00132	.105	.00013	.00041	.093	.199
%RSD	1.2891	2.4651	5.8578	29.292	.84595	46.835	5.0771	.92988	.92988

#1	56.539	.00661	.01060	.00356	12.522	-0.00018	.00840	9.9544	21.302
#2	57.579	.00684	.01151	.00542	12.373	-0.00036	.00782	10.086	21.584

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.17789	.00318	.00052	-0.00005	-0.00351	.00038	.01584	.00011
Stddev	.00069	.00069	.00039	.00020	.00047	.01239	.00007	.00010	.00077
%RSD	1940.8	.38598	12.146	39.097	908.80	353.31	19.378	.60426	686.32

#1	-0.00045	.17740	.00345	.00067	-0.00039	-0.01226	.00044	.01578	-0.00043
#2	.00052	.17837	.00290	.00038	.00028	.00525	.00033	.01591	.00065

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3342.0	60128.	6469.6
Stddev	.2	43.	26.5
%RSD	.00605	.07195	.40999

#1	3341.9	60098.	6450.8
#2	3342.1	60159.	6488.3

Sample Name: 280-70130-A-2-A Acquired: 6/5/2015 21:06:01 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280387 6010c

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00053	.01288	-.00580	.11536	.16057	-.00011	-.00340	10.134	.00006
Stddev	.00057	.00036	.00002	.00043	.00137	.00002	.00253	.140	.00003
%RSD	108.33	2.7643	.38371	.37035	.85629	15.011	74.429	1.3821	46.233

#1	.00094	.01263	-.00579	.11566	.15959	-.00012	-.00519	10.035	.00004
#2	.00012	.01313	-.00582	.11506	.16154	-.00010	-.00161	10.233	.00009

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00097	.00062	-.00064	.03891	5.9669	.11611	4.5176	.00244	.07826
Stddev	.00034	.00030	.00050	.00076	.0490	.00316	.0230	.00002	.00133
%RSD	34.599	48.503	77.750	1.9513	.82050	2.7213	.50869	.80105	1.6952

#1	-.00073	.00041	-.00029	.03837	5.9323	.11388	4.5339	.00245	.07920
#2	-.00121	.00083	-.00100	.03944	6.0015	.11835	4.5014	.00242	.07732

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	199.55	.00930	.00387	.00018	7.8251	-.00140	.00488	22.005	47.091
Stddev	1.83	.00002	.00044	.00037	.0635	.00014	.00103	.269	.575
%RSD	.91777	.24836	11.429	209.50	.81188	10.327	21.155	1.2220	1.2220

#1	198.25	.00932	.00356	.00044	7.8700	-.00130	.00415	21.815	46.684
#2	200.84	.00928	.00418	-.00009	7.7802	-.00150	.00561	22.195	47.498

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00121	.55766	.00308	-.00070	-.00053	W -.05004	.00011	.21546	.00071
Stddev	.00010	.00730	.00323	.00012	.00081	.02176	.00006	.00014	.00361
%RSD	8.0918	1.3096	104.68	17.724	153.42	43.489	55.911	.06335	511.60

#1	-.00114	.55249	.00080	-.00062	.00004	-.03465	.00015	.21556	-.00185
#2	-.00128	.56282	.00536	-.00079	-.00110	-.06543	.00007	.21536	.00326

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Warn Chk Pass Chk Pass Chk Pass
 High Limit 45.000
 Low Limit -.05000

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3291.4	58803.	6480.9
Stddev	8.7	91.	3.3
%RSD	.26467	.15405	.05098

#1	3285.3	58867.	6483.2
#2	3297.6	58739.	6478.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00148	.13306	.01630	.05775	.39112	.00036	-.00186	72.723	.00024
Stddev	.00096	.00243	.00001	.00048	.01040	.00003	.00264	1.880	.00043
%RSD	64.891	1.8297	.05586	.83098	2.6578	8.5206	141.90	2.5853	177.51

#1	.00216	.13478	.01630	.05742	.38377	.00038	-.00373	71.394	-.00006
#2	.00080	.13134	.01631	.05809	.39847	.00034	.00001	74.053	.00054

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.23852	.00098	-.00019	49.370	20.280	.07089	43.318	W 14.917	-.00313
Stddev	.00137	.00007	.00087	1.778	.441	.00022	.033	.002	.00054
%RSD	.57298	6.8697	466.65	3.6016	2.1745	.31513	.07524	.01307	17.374

#1	.23756	.00094	-.00080	48.113	19.968	.07073	43.295	14.916	-.00274
#2	.23949	.00103	.00043	50.628	20.592	.07105	43.341	14.919	-.00351

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								10.000	
Low Limit								-.01000	

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	130.26	.07082	.86966	.00794	1.2871	-.00659	.01331	26.443	56.587
Stddev	3.13	.00016	.00136	.00052	.0060	.00390	.00032	.812	1.738
%RSD	2.4053	.22668	.15674	6.5091	.46220	59.147	2.4408	3.0713	3.0713

#1	128.05	.07070	.87063	.00757	1.2829	-.00934	.01308	25.868	55.358
#2	132.48	.07093	.86870	.00830	1.2913	-.00383	.01354	27.017	57.816

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00237	.78113	.00654	.00085	-.00835	-.03039	.00128	.20751	.00034
Stddev	.00063	.01966	.00107	.00008	.00195	.01765	.00062	.00200	.00148
%RSD	26.575	2.5168	16.288	9.7999	23.346	58.054	48.677	.96486	433.72

#1	.00282	.76723	.00730	.00079	-.00697	-.01792	.00084	.20609	-.00071
#2	.00193	.79503	.00579	.00091	-.00973	-.04287	.00171	.20892	.00139

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3334.3	59989.	6661.5
Stddev	.7	88.	139.8
%RSD	.01961	.14670	2.0994

#1	3333.9	60051.	6760.4
#2	3334.8	59927.	6562.6

Sample Name: 280-70130-A-4-A Acquired: 6/5/2015 21:11:23 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280387 6010c

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00057	.00161	.00091	.00226	-.00003	-.00021	-.00158	.05162	-.00037
Stddev	.00013	.00064	.00380	.00046	.00057	.00004	.00019	.00027	.00011
%RSD	23.763	39.714	416.61	20.177	1840.3	18.985	11.900	.52431	29.373

#1	.00047	.00116	.00360	.00258	-.00043	-.00018	-.00172	.05143	-.00030
#2	.00066	.00207	-.00177	.00193	.00037	-.00024	-.00145	.05181	-.00045

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00015	.00062	.08769	.00170	.25952	.00355	-.00345	.00060	-.00034
Stddev	.00020	.00022	.00087	.00091	.02859	.00119	.00574	.00001	.00037
%RSD	133.38	35.083	.99778	53.531	11.016	33.525	166.49	1.3977	107.27

#1	.00029	.00046	.08708	.00234	.23931	.00439	.00061	.00061	-.00008
#2	.00001	.00077	.08831	.00105	.27974	.00271	-.00750	.00060	-.00060

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.32480	.00351	.00115	.00126	.01183	-.00087	.00805	.01105	.02365
Stddev	.00581	.00051	.00044	.00045	.00045	.00004	.00444	.00325	.00697
%RSD	1.7887	14.605	38.185	35.928	3.7877	4.9952	55.208	29.447	29.447

#1	.32069	.00387	.00084	.00158	.01151	-.00090	.01119	.00875	.01873
#2	.32891	.00314	.00145	.00094	.01214	-.00084	.00490	.01336	.02858

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00046	.00024	.00405	-.00039	.00192	-.02616	-.00025	.00983	.00229
Stddev	.00023	.00011	.00109	.00020	.00143	.01671	.00017	.00029	.00145
%RSD	50.169	46.321	27.014	52.917	74.339	63.873	67.895	2.9153	63.291

#1	.00062	.00032	.00482	-.00053	.00091	-.03798	-.00037	.00963	.00332
#2	.00030	.00016	.00328	-.00024	.00293	-.01435	-.00013	.01003	.00127

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3362.7	61711.	6445.4
Stddev	6.3	57.	10.1
%RSD	.18813	.09284	.15640

#1	3358.2	61671.	6452.5
#2	3367.2	61752.	6438.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0006	.16614	.00393	.17379	.04917	-0.0010	-0.00255	6.2403	-0.00007
Stddev	.00007	.00173	.00408	.00225	.00037	.00010	.00149	.0439	.00022
%RSD	110.60	1.0412	103.71	1.2974	.74770	104.16	58.319	.70365	321.73

#1	-0.0001	.16736	.00105	.17219	.04891	-0.0017	-0.00150	6.2092	.00009
#2	-0.0011	.16492	.00682	.17538	.04943	-0.0003	-0.00361	6.2713	-0.0022

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0078	.00063	.00450	1.7095	.47505	.01424	3.9528	.02957	.00004
Stddev	.00011	.00018	.00025	.0135	.00337	.00008	.0061	.00001	.00010
%RSD	13.673	28.082	5.6605	.79191	.70973	.53798	.15370	.01940	232.04

#1	-0.0086	.00051	.00468	1.6999	.47267	.01430	3.9571	.02956	-0.0003
#2	-0.0071	.00076	.00432	1.7191	.47744	.01419	3.9485	.02957	.00011

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	323.52	.00105	.12584	.00279	16.266	-0.00161	.00638	15.203	32.533
Stddev	.17	.00075	.00170	.00015	.197	.00036	.00380	.093	.199
%RSD	.05111	71.291	1.3472	5.2224	1.2101	22.377	59.569	.61163	.61163

#1	323.64	.00052	.12464	.00289	16.127	-0.00187	.00906	15.137	32.393
#2	323.41	.00158	.12703	.00268	16.406	-0.00136	.00369	15.268	32.674

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0020	.07483	.00199	.00461	.00162	-0.03168	.00020	.17131	.00119
Stddev	.00056	.00010	.00155	.00044	.00080	.01287	.00044	.00092	.00070
%RSD	284.42	.12824	78.112	9.6097	49.138	40.645	213.13	.53486	58.919

#1	-0.0059	.07477	.00089	.00492	.00219	-0.02257	.00051	.17066	.00168
#2	.00020	.07490	.00308	.00429	.00106	-0.04078	-0.00010	.17195	.00069

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3203.0	56870.	6336.4
Stddev	11.0	105.	80.9
%RSD	.34246	.18516	1.2766

#1	3195.3	56796.	6393.6
#2	3210.8	56945.	6279.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00026	.01241	-.00161	.10048	.07542	-.00011	-.00261	9.8366	-.00014
Stddev	.00015	.00019	.00397	.00097	.00018	.00001	.00035	.0557	.00019
%RSD	58.737	1.5304	246.22	.96179	.23238	6.2630	13.594	.56595	134.23

#1	.00037	.01254	.00119	.10117	.07555	-.00012	-.00236	9.7972	-.00001
#2	.00015	.01228	-.00442	.09980	.07530	-.00011	-.00286	9.8759	-.00027

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00029	.00051	.00075	.17516	.62697	.02037	7.3689	.07530	-.00041
Stddev	.00017	.00000	.00011	.00231	.06579	.00007	.0249	.00034	.00011
%RSD	58.733	.66458	14.129	1.3176	10.494	.34068	.33747	.45158	27.251

#1	.00040	.00051	.00067	.17353	.58044	.02032	7.3513	.07506	-.00049
#2	.00017	.00050	.00082	.17679	.67349	.02042	7.3864	.07554	-.00033

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	319.35	.00045	.01426	.00146	6.7191	-.00031	.00533	14.076	30.123
Stddev	1.04	.00011	.00546	.00177	.0149	.00061	.00347	.036	.077
%RSD	.32471	24.385	38.265	121.20	.22185	195.46	65.252	.25593	.25593

#1	318.62	.00053	.01040	.00021	6.7086	.00012	.00778	14.051	30.068
#2	320.09	.00037	.01812	.00271	6.7296	-.00074	.00287	14.102	30.177

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00099	.11544	.00331	-.00032	.00030	-.03518	-.00025	.00789	.00118
Stddev	.00092	.00074	.00093	.00019	.00006	.00559	.00014	.00041	.00070
%RSD	92.726	.64236	28.162	57.816	18.600	15.885	56.485	5.2166	59.613

#1	-.00034	.11491	.00265	-.00046	.00026	-.03914	-.00036	.00818	.00167
#2	-.00165	.11596	.00397	-.00019	.00034	-.03123	-.00015	.00760	.00068

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3239.8	57602.	6464.1
Stddev	6.5	335.	19.6
%RSD	.19985	.58156	.30348

#1	3244.4	57839.	6477.9
#2	3235.2	57365.	6450.2

Sample Name: 280-70130-A-8-A Acquired: 6/5/2015 21:19:13 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280387 6010c

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00035	.00981	.00076	.10515	.07512	-.00003	-.00308	9.8055	-.00004
Stddev	.00001	.00022	.00295	.00152	.00156	.00006	.00154	.0582	.00007
%RSD	2.4246	2.2316	386.48	1.4489	2.0816	203.86	49.914	.59300	174.72

#1	.00035	.00996	-.00132	.10408	.07402	.00001	-.00416	9.7644	-.00009
#2	.00036	.00965	.00285	.10623	.07623	-.00007	-.00199	9.8466	.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00027	.00044	.00067	.19484	.69203	.02037	7.2826	.07416	-.00047
Stddev	.00012	.00022	.00058	.00185	.00659	.00087	.0067	.00033	.00059
%RSD	44.601	50.197	86.200	.94722	.95203	4.2688	.09165	.45071	124.72

#1	.00018	.00028	.00026	.19353	.69669	.02099	7.2874	.07393	-.00089
#2	.00035	.00060	.00108	.19614	.68737	.01976	7.2779	.07440	-.00006

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	323.48	.00075	.01757	.00209	6.7629	-.00257	.00916	14.466	30.957
Stddev	2.26	.00008	.00081	.00012	.0458	.00082	.00722	.139	.297
%RSD	.69916	11.230	4.6062	5.5829	.67724	31.824	78.831	.96065	.96065

#1	321.88	.00069	.01700	.00218	6.7305	-.00315	.00405	14.368	30.747
#2	325.07	.00081	.01815	.00201	6.7953	-.00199	.01426	14.564	31.168

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00012	.11471	.00305	.00010	.00172	W -.05470	-.00081	.00719	.00141
Stddev	.00158	.00100	.00123	.00018	.00038	.01164	.00019	.00013	.00002
%RSD	1367.9	.87375	40.339	187.41	22.439	21.288	23.398	1.8535	1.7165

#1	.00123	.11400	.00218	-.00003	.00199	-.04647	-.00068	.00710	.00143
#2	-.00100	.11542	.00391	.00023	.00144	-.06293	-.00095	.00729	.00139

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3248.3	58045.	6570.6
Stddev	1.3	147.	48.5
%RSD	.04149	.25375	.73783

#1	3249.2	57941.	6604.9
#2	3247.3	58149.	6536.3

Sample Name: 280-70130-A-9-A Acquired: 6/5/2015 21:21:57 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280387 6010c

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00047	.12336	-.00025	.02886	.03721	-.00003	-.00034	1.2643	.00006
Stddev	.00043	.00052	.00083	.00188	.00050	.00007	.00141	.0032	.00011
%RSD	91.533	.41904	327.85	6.5253	1.3509	196.98	410.25	.25255	180.74

#1	.00017	.12373	.00034	.03020	.03685	-.00008	.00066	1.2621	-.00002
#2	.00078	.12300	-.00084	.02753	.03757	.00001	-.00134	1.2666	.00013

Check ?
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00591	.00071	-.00104	.69824	.54644	.01984	1.0270	.27556	.00002
Stddev	.00001	.00020	.00048	.00904	.02832	.00123	.0033	.00032	.00033
%RSD	.19768	28.041	46.588	1.2943	5.1827	6.1905	.31806	.11680	1547.6

#1	.00590	.00057	-.00069	.69185	.56647	.02071	1.0293	.27578	.00026
#2	.00592	.00086	-.00138	.70463	.52641	.01897	1.0247	.27533	-.00021

Check ?
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	61.328	.00363	.01151	.00007	9.5907	-.00077	.00737	18.015	38.551
Stddev	.100	.00031	.00212	.00174	.0253	.00095	.00066	.036	.076
%RSD	.16377	8.4011	18.389	2488.9	.26416	123.60	8.9293	.19833	.19833

#1	61.399	.00342	.01301	.00130	9.5727	-.00010	.00783	17.989	38.497
#2	61.257	.00385	.01002	-.00116	9.6086	-.00144	.00690	18.040	38.605

Check ?
 High Limit
 Low Limit

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00069	.01275	.00375	.00142	.00257	-.02101	.00029	.01480	.00470
Stddev	.00090	.00003	.00144	.00013	.00079	.02426	.00036	.00009	.00067
%RSD	129.15	.20549	38.334	9.2268	30.686	115.47	123.25	.63931	14.247

#1	-.00133	.01277	.00273	.00151	.00313	-.00385	.00054	.01487	.00423
#2	-.00006	.01274	.00476	.00133	.00201	-.03816	.00004	.01473	.00517

Check ?
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3406.2	61718.	6656.3
Stddev	9.2	41.	.7
%RSD	.27050	.06641	.01114

#1	3399.7	61747.	6655.8
#2	3412.7	61689.	6656.8

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00355	48.177	-.00044	-.00100	-.00004	.00016	F .88439	.04473	-.00013	-.00117	.00089	-.00248
Stddev	.00046	.257	.00238	.00019	.00008	.00007	.00762	.00403	.00037	.00031	.00014	.00027
%RSD	12.898	.53250	543.66	18.633	200.92	45.101	.86150	9.0072	277.50	26.241	15.891	11.034

#1	.00322	47.995	.00124	-.00113	.00002	.00011	.88978	.04188	.00013	-.00095	.00079	-.00229
#2	.00387	48.358	-.00212	-.00087	-.00010	.00021	.87901	.04758	-.00039	-.00139	.00099	-.00267

Check ?	None	Chk Pass	None	None	None	None	Chk Fail	None	None	None	None	None
Value							1.0000					
Range							-10.490%					

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	45.956	.23612	.00430	-.01302	-.00143	-.00052	238.87	.00137	.00369	.00346	F 4.1931	-.00663
Stddev	.464	.03549	.00003	.00132	.00004	.00008	2.60	.00005	.00201	.00103	.0575	.00184
%RSD	1.0105	15.032	.69400	10.111	3.1195	14.310	1.0889	3.4875	54.641	29.676	1.3708	27.787

#1	45.627	.21102	.00432	-.01209	-.00146	-.00047	237.03	.00141	.00511	.00419	4.2337	-.00793
#2	46.284	.26122	.00428	-.01396	-.00139	-.00058	240.71	.00134	.00226	.00274	4.1524	-.00532

Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None	Chk Fail	None
Value											5.0000	
Range											-10.490%	

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00027	-.01641	-.03512	-.00233	.00054	4.8586	-.01624	.00185	10.028	.00280	.00309	.06184
Stddev	.00109	.01367	.02926	.00022	.00006	.0072	.00054	.00143	.001	.00066	.00019	.00496
%RSD	398.94	83.293	83.293	9.6457	11.887	.14861	3.3158	77.056	.00978	23.518	6.0252	8.0129

#1	.00104	-.00675	-.01444	-.00248	.00059	4.8637	-.01586	.00084	10.027	.00234	.00296	.05834
#2	-.00050	-.02608	-.05581	-.00217	.00050	4.8535	-.01662	.00286	10.029	.00327	.00322	.06535

Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3414.8	61648.	6687.7
Stddev	64.4	215.	44.4
%RSD	1.8866	.34842	.66348

#1	3460.4	61496.	6719.1
#2	3369.3	61800.	6656.3

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50050	.45940	F .87517	.45474	.48705	F .44515	-.00408	4.8243	.45301	.48406	.47160	.46197
Stddev	.00782	.00326	.01341	.00463	.00005	.00040	.00136	.0036	.00256	.00168	.00890	.00506
%RSD	1.5631	.70962	1.5323	1.0190	.01057	.08965	33.305	.07378	.56507	.34778	1.8879	1.0958

#1	.49497	.46170	.88466	.45802	.48709	.44543	-.00312	4.8218	.45482	.48525	.47789	.45839
#2	.50603	.45709	.86569	.45147	.48702	.44487	-.00504	4.8269	.45120	.48287	.46530	.46555

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			1.0000			.50000						
Range			-10.490%			-10.490%						

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.2513	48.176	.92716	19.728	.49394	F .43747	4.9147	.48647	.91006	.95726	.00901	F .89045
Stddev	.0034	.124	.00042	.353	.00916	.00190	.0020	.00113	.00973	.00573	.00560	.00798
%RSD	.14868	.25752	.04535	1.7917	1.8555	.43482	.04153	.23262	1.0690	.59829	62.112	.89605

#1	2.2536	48.089	.92746	19.478	.48746	.43882	4.9161	.48727	.91693	.96131	.00506	.89609
#2	2.2489	48.264	.92687	19.977	.50042	.43613	4.9132	.48567	.90318	.95321	.01297	.88481

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Fail				
Value						.50000						1.0000
Range						-10.490%						-10.490%

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .86680	4.5241	9.6817	F .87250	.45328	.00107	.48396	F .89239	-.05218	.50043	.48594	.47582
Stddev	.00680	.0619	.1325	.00002	.00027	.00084	.00831	.00569	.01741	.00300	.00661	.00345
%RSD	.78505	1.3680	1.3680	.00278	.05905	78.060	1.7168	.63726	33.374	.59908	1.3599	.72519

#1	.87161	4.4804	9.5880	.87249	.45309	.00048	.47809	.89641	-.06449	.49831	.48126	.47338
#2	.86199	4.5679	9.7753	.87252	.45347	.00167	.48984	.88837	-.03986	.50254	.49061	.47826

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass
Value	1.0000			1.0000				1.0000				
Range	-10.490%			-10.490%				-10.490%				

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3388.2	62468.	6740.9
Stddev	49.3	712.	28.9
%RSD	1.4553	1.1405	.42921

#1	3423.1	62972.	6761.3
#2	3353.4	61964.	6720.4

Sample Name: CCB Acquired: 6/5/2015 21:29:39 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00054	-.00040	.00065	-.00018	-.00049	-.00013	-.00098	-.00169	-.00040	.00029	.00009	-.00186
Stddev	.00056	.00005	.00300	.00052	.00017	.00006	.00354	.00119	.00011	.00004	.00001	.00008
%RSD	102.79	13.252	461.94	290.08	34.146	49.544	361.00	70.505	27.674	14.438	7.4837	4.3692

#1	.00015	-.00036	-.00147	-.00055	-.00061	-.00008	.00152	-.00254	-.00048	.00026	.00008	-.00192
#2	.00093	-.00044	.00277	.00019	-.00037	-.00017	-.00349	-.00085	-.00032	.00032	.00009	-.00180

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00079	.23667	.00416	-.00339	.00006	.00042	.14081	-.00022	-.00010	.00055	.00714	-.00351
Stddev	.00163	.03352	.00374	.00317	.00000	.00025	.01181	.00009	.00231	.00044	.00400	.00191
%RSD	207.08	14.164	89.874	93.709	3.8796	60.184	8.3894	41.730	2309.4	79.748	55.991	54.560

#1	-.00194	.21297	.00152	-.00563	.00006	.00059	.14916	-.00016	-.00173	.00024	.00997	-.00486
#2	.00037	.26037	.00680	-.00114	.00006	.00024	.13245	-.00029	.00153	.00086	.00431	-.00215

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .01170	.00827	.01769	-.00093	.00008	.00343	.00026	.00139	-.00939	.00034	.00045	.00096
Stddev	.00342	.00148	.00317	.00075	.00005	.00086	.00040	.00133	.03933	.00009	.00031	.00279
%RSD	29.194	17.917	17.917	80.741	68.415	24.983	155.96	95.970	418.80	26.888	70.079	291.73

#1	.00929	.00722	.01545	-.00040	.00004	.00283	-.00003	.00233	.01842	.00041	.00023	.00293
#2	.01412	.00931	.01993	-.00146	.00011	.00404	.00054	.00045	-.03720	.00028	.00067	-.00102

Check ?	Chk Fail	Chk Pass										
High Limit	.00500											
Low Limit	-.00500											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3371.8	61107.	6424.8
Stddev	50.9	195.	35.1
%RSD	1.5100	.31950	.54624

#1	3335.8	61245.	6400.0
#2	3407.8	60969.	6449.6

Sample Name: CCVL3312280 Acquired: 6/5/2015 21:32:02 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01065	.09524	.01647	.09100	.00969	.00090	.09794	.19076	.00455	.01019	.00991	.01327
Stddev	.00000	.00037	.00216	.00022	.00011	.00010	.00054	.00249	.00017	.00008	.00026	.00026
%RSD	.00366	.38511	13.092	.24294	1.0972	11.150	.55199	1.3075	3.7834	.80172	2.6106	1.9795

#1	.01065	.09550	.01494	.09116	.00976	.00098	.09755	.18900	.00443	.01025	.01009	.01346
#2	.01065	.09498	.01799	.09084	.00961	.00083	.09832	.19253	.00467	.01013	.00973	.01308

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09203	3.2129	F .01312	.21217	.01050	.01738	1.1203	.03953	2.6452	.00926	.00701	.00989
Stddev	.00063	.0174	.00121	.00002	.00014	.00010	.0206	.00011	.0184	.00223	.00111	.00154
%RSD	.68077	.54217	9.1896	.00792	1.3525	.57406	1.8417	.28697	.69655	24.100	15.779	15.552

#1	.09159	3.2252	.01397	.21216	.01060	.01731	1.1349	.03961	2.6582	.01084	.00623	.01097
#2	.09247	3.2006	.01226	.21219	.01040	.01745	1.1057	.03945	2.6321	.00769	.00779	.00880

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01890	.46953	1.0048	.08732	.00955	.01904	.00967	.01775	F .02583	.01018	.02218	.01631
Stddev	.00171	.02862	.0612	.00116	.00013	.00042	.00048	.00136	.01856	.00077	.00055	.00036
%RSD	9.0695	6.0958	6.0958	1.3230	1.3226	2.2125	4.9382	7.6503	71.850	7.5442	2.4684	2.1945

#1	.02011	.48976	1.0481	.08814	.00964	.01934	.01001	.01871	.03896	.01073	.02256	.01605
#2	.01768	.44929	.96148	.08650	.00946	.01875	.00933	.01679	.01271	.00964	.02179	.01656

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass							
Value									.06000			
Range									-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3493.2	63775.	6658.4
Stddev	12.2	10.	31.5
%RSD	.34812	.01600	.47303

#1	3501.8	63768.	6680.7
#2	3484.6	63782.	6636.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0013	.00302	.00269	.26169	.10274	-0.0012	-0.00193	23.585	-0.0016
Stddev	.00044	.00024	.00146	.00014	.00014	.00005	.00172	.164	.00030
%RSD	328.40	7.8596	54.270	.05343	.13223	40.010	89.002	.69694	192.56

#1	-0.0044	.00319	.00166	.26179	.10264	-0.0016	-0.00314	23.468	-0.0037
#2	.00018	.00285	.00373	.26159	.10283	-0.0009	-0.00071	23.701	.00006

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0069	.00052	-0.0031	.01146	3.3746	.03730	10.967	.00131	.00396
Stddev	.00018	.00043	.00009	.00001	.1097	.00113	.006	.00004	.00042
%RSD	25.753	82.685	28.562	.08586	3.2502	3.0185	.05681	3.2919	10.507

#1	-0.0056	.00082	-0.0037	.01147	3.2971	.03651	10.963	.00134	.00367
#2	-0.0081	.00021	-0.0025	.01145	3.4522	.03810	10.972	.00128	.00425

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	138.09	.00197	.04523	.00453	18.995	.00338	.00847	8.9729	19.202
Stddev	1.19	.00009	.00172	.00158	.100	.00061	.00082	.1548	.331
%RSD	.86299	4.3595	3.8036	34.894	.52715	18.020	9.6581	1.7249	1.7249

#1	137.25	.00191	.04401	.00341	18.924	.00381	.00789	8.8635	18.968
#2	138.93	.00204	.04644	.00565	19.065	.00295	.00905	9.0824	19.436

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.56913	.00171	-0.00058	-0.00072	-0.04338	-0.00061	.01010	-0.0101
Stddev	.00024	.00307	.00044	.00019	.00073	.04329	.00008	.00099	.00001
%RSD	284.09	.54010	25.582	33.363	101.96	99.806	12.804	9.8307	1.2460

#1	-0.0009	.56695	.00202	-0.0044	-0.0124	-0.1276	-0.0056	.00940	-0.0102
#2	.00025	.57130	.00140	-0.0072	-0.0020	-0.7399	-0.0067	.01080	-0.0100

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3323.4	59238.	6526.6
Stddev	30.8	67.	61.3
%RSD	.92546	.11243	.93913

#1	3301.7	59191.	6570.0
#2	3345.2	59285.	6483.3

Sample Name: 280-70157-A-1-A Acquired: 6/5/2015 21:37:20 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280387 6010c

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00122	.09277	.00320	.08211	.06543	-.00014	-.00169	38.398	-.00010
Stddev	.00013	.00074	.00202	.00034	.00062	.00002	.00060	.195	.00025
%RSD	10.597	.79244	63.141	.41008	.95301	11.832	35.705	.50845	245.08

#1	.00113	.09329	.00463	.08235	.06499	-.00013	-.00126	38.260	-.00028
#2	.00131	.09225	.00177	.08187	.06587	-.00015	-.00211	38.536	.00007

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	.00887	.00118	.02266	3.5007	.03830	12.761	.00069	.00114
Stddev	.00003	.00013	.00024	.00183	.0690	.00021	.001	.00003	.00033
%RSD	18.587	1.4796	20.013	8.0617	1.9713	.53868	.00986	5.0427	28.738

#1	-.00012	.00878	.00134	.02396	3.4519	.03844	12.761	.00072	.00138
#2	-.00016	.00897	.00101	.02137	3.5495	.03815	12.760	.00067	.00091

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	79.929	.00035	.00494	.00603	39.287	.00066	.00959	10.159	21.741
Stddev	1.708	.00072	.00025	.00053	.095	.00327	.00091	.251	.536
%RSD	2.1362	207.60	5.1026	8.7336	.24151	496.32	9.5265	2.4668	2.4668

#1	78.722	-.00016	.00511	.00640	39.354	.00297	.01024	9.9819	21.361
#2	81.137	.00086	.00476	.00566	39.220	-.00165	.00895	10.336	22.120

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00037	.52901	.00178	-.00023	-.00236	-.02962	.01555	.06447	.00326
Stddev	.00125	.00396	.00141	.00045	.00212	.01180	.00042	.00031	.00207
%RSD	340.03	.74818	78.982	200.69	90.119	39.850	2.7311	.47564	63.517

#1	.00125	.52621	.00079	-.00055	-.00386	-.02127	.01585	.06425	.00472
#2	-.00052	.53181	.00278	.00009	-.00085	-.03797	.01525	.06468	.00179

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3395.7	61440.	6702.4
Stddev	18.6	262.	29.9
%RSD	.54871	.42600	.44645

#1	3382.6	61625.	6723.6
#2	3408.9	61254.	6681.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00030	.01874	.00003	.01573	.01300	-.00001	-.00163	7.7761	-.00017
Stddev	.00017	.00045	.00108	.00038	.00020	.00005	.00172	.0708	.00002
%RSD	56.658	2.3847	3574.3	2.4004	1.5442	460.00	105.28	.91040	12.860

#1	.00042	.01906	.00080	.01546	.01314	-.00005	-.00042	7.7260	-.00016
#2	.00018	.01842	-.00073	.01600	.01286	.00003	-.00285	7.8262	-.00019

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00015	.00229	-.00053	.01018	.84750	.01040	2.6811	.00027	.00035
Stddev	.00002	.00017	.00014	.00149	.05678	.00015	.0023	.00004	.00001
%RSD	13.938	7.3611	26.037	14.661	6.6992	1.4261	.08492	14.524	3.5915

#1	.00013	.00217	-.00043	.00912	.88765	.01050	2.6828	.00030	.00036
#2	.00016	.00240	-.00062	.01123	.80735	.01029	2.6795	.00024	.00034

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.673	.00053	.00264	.00019	7.7483	.00071	.00809	2.0091	4.2995
Stddev	.332	.00028	.00291	.00255	.0160	.00023	.00136	.0204	.0437
%RSD	1.9909	53.155	110.11	1353.4	.20689	31.714	16.787	1.0175	1.0175

#1	16.908	.00073	.00058	-.00162	7.7596	.00087	.00713	1.9947	4.2686
#2	16.439	.00033	.00470	.00199	7.7369	.00055	.00905	2.0236	4.3305

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00271	.10652	.00230	-.00050	.00189	-.00589	.00244	.01516	.00254
Stddev	.00012	.00097	.00284	.00035	.00150	.00935	.00007	.00014	.00258
%RSD	4.5502	.91033	123.74	69.790	79.498	158.74	2.7250	.92225	101.81

#1	.00280	.10584	.00431	-.00075	.00083	-.01250	.00239	.01526	.00436
#2	.00262	.10721	.00029	-.00025	.00295	.00072	.00249	.01506	.00071

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3408.4	61683.	6777.1
Stddev	1.4	537.	98.8
%RSD	.04166	.86993	1.4583

#1	3407.4	62062.	6847.0
#2	3409.4	61303.	6707.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05202	1.8108	.89472	1.0048	2.0295	.04496	F 1.7954	84.571	.09160
Stddev	.00018	.0095	.00045	.0041	.0164	.00007	.0050	.659	.00032
%RSD	.33702	.52360	.04975	.40588	.81018	.16279	.27939	.77929	.35250

#1	.05190	1.8041	.89504	1.0020	2.0179	.04491	1.7919	84.105	.09137
#2	.05214	1.8175	.89441	1.0077	2.0412	.04502	1.7990	85.037	.09183

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46527	W .18708	.23982	.90594	52.678	.98179	61.893	.49690	.90879
Stddev	.00159	.00063	.00192	.00809	.491	.00941	.184	.00002	.00343
%RSD	.34245	.33437	.80145	.89264	.93141	.95825	.29806	.00316	.37726

#1	.46414	.18663	.24118	.90022	52.331	.97514	62.024	.49689	.90636
#2	.46640	.18752	.23846	.91166	53.025	.98844	61.763	.49691	.91121

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	125.19	.46546	W 9.4636	.47251	40.120	.46402	1.7708	18.868	40.378
Stddev	1.54	.00173	.0342	.00197	.092	.00425	.0084	.233	.499
%RSD	1.2304	.37234	.36155	.41699	.23055	.91666	.47536	1.2368	1.2368

#1	124.10	.46423	9.4394	.47111	40.054	.46101	1.7648	18.703	40.025
#2	126.28	.46668	9.4878	.47390	40.185	.46703	1.7767	19.033	40.731

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.7413	1.4357	.98290	.98465	1.6967	2.0079	.52763	.54237	.48453
Stddev	.0165	.0086	.00556	.00154	.0153	.0091	.00204	.00328	.00589
%RSD	.94583	.59806	.56537	.15640	.90337	.45257	.38600	.60409	1.2162

#1	1.7296	1.4296	.97897	.98357	1.6858	2.0015	.52619	.54006	.48036
#2	1.7529	1.4418	.98683	.98574	1.7075	2.0143	.52907	.54469	.48870

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3250.7	58709.	6459.5
Stddev	8.7	171.	68.7
%RSD	.26667	.29110	1.0632

#1	3256.8	58830.	6508.1
#2	3244.6	58589.	6410.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05160	1.8030	.88902	.99191	2.0239	.04462	F 1.7647	84.702	.09013
Stddev	.00057	.0135	.00835	.00717	.0023	.00007	.0144	.129	.00071
%RSD	1.1051	.75066	.93916	.72296	.11570	.15459	.81645	.15273	.78509

#1	.05120	1.8126	.89493	.99698	2.0222	.04466	1.7749	84.611	.09063
#2	.05200	1.7935	.88312	.98683	2.0255	.04457	1.7545	84.794	.08963

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46227	W .18398	.23509	.89567	52.543	.97607	61.903	.49902	.90205
Stddev	.00351	.00175	.00176	.00777	.099	.00049	.288	.00069	.00930
%RSD	.75894	.95379	.74947	.86747	.18884	.04979	.46520	.13927	1.0312

#1	.46475	.18522	.23384	.89018	52.472	.97641	61.699	.49853	.90863
#2	.45979	.18274	.23633	.90117	52.613	.97572	62.106	.49951	.89548

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	125.08	.46147	W 9.3576	.46904	40.127	.45802	1.7400	18.993	40.645
Stddev	.40	.00313	.0735	.00740	.360	.00678	.0328	.008	.017
%RSD	.31948	.67792	.78531	1.5777	.89699	1.4799	1.8823	.04276	.04276

#1	124.79	.46368	9.4095	.47428	40.381	.46281	1.7632	18.987	40.632
#2	125.36	.45926	9.3056	.46381	39.872	.45323	1.7168	18.999	40.657

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.7193	1.4356	.98595	.98586	1.6696	1.9937	.53120	.54525	.48437
Stddev	.0265	.0008	.00417	.00286	.0299	.0269	.00133	.00067	.00077
%RSD	1.5436	.05574	.42321	.29009	1.7885	1.3487	.24946	.12228	.15917

#1	1.7381	1.4351	.98300	.98384	1.6907	2.0127	.53026	.54572	.48492
#2	1.7005	1.4362	.98890	.98789	1.6485	1.9747	.53214	.54478	.48383

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3222.9	57967.	6409.8
Stddev	.9	8.	9.5
%RSD	.02883	.01449	.14771

#1	3222.3	57973.	6416.5
#2	3223.6	57961.	6403.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04811	.92053	.17252	.16342	.15626	.04373	-.00209	54.407	.04307
Stddev	.00003	.00075	.00048	.00052	.00347	.00049	.00263	.732	.00025
%RSD	.06536	.08149	.27964	.31980	2.2200	1.1206	125.56	1.3451	.58607

#1	.04809	.92000	.17218	.16305	.15381	.04339	-.00395	53.890	.04325
#2	.04813	.92106	.17287	.16379	.15872	.04408	-.00023	54.925	.04290

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04384	.05239	.04588	.95165	22.210	.13054	30.604	.04882	.04204
Stddev	.00071	.00041	.00014	.00766	.159	.00165	.041	.00012	.00035
%RSD	1.6274	.77841	.30687	.80518	.71392	1.2661	.13330	.24427	.83658

#1	.04434	.05268	.04578	.94624	22.098	.13170	30.633	.04890	.04229
#2	.04333	.05210	.04598	.95707	22.322	.12937	30.575	.04873	.04179

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	95.313	.04519	1.7580	.09390	36.071	.08441	.16813	14.277	30.553
Stddev	1.338	.00060	.0059	.00107	.053	.00071	.00360	.176	.376
%RSD	1.4041	1.3174	.33353	1.1378	.14702	.84673	2.1432	1.2316	1.2316

#1	94.366	.04561	1.7622	.09315	36.033	.08492	.17067	14.153	30.287
#2	96.259	.04477	1.7539	.09466	36.108	.08391	.16558	14.402	30.819

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08129	.54302	.19167	.04616	.15916	.45410	.06413	.25634	.05009
Stddev	.00070	.00622	.00184	.00028	.00175	.05798	.00094	.00065	.00033
%RSD	.85618	1.1448	.95783	.60888	1.0978	12.768	1.4613	.25299	.66709

#1	.08080	.53862	.19297	.04636	.16039	.41310	.06480	.25589	.05033
#2	.08178	.54741	.19037	.04596	.15792	.49510	.06347	.25680	.04986

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3346.9	59349.	6395.5
Stddev	2.9	132.	70.1
%RSD	.08643	.22214	1.0959

#1	3344.8	59442.	6445.1
#2	3348.9	59256.	6346.0

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00328	47.944	.00318	.00036	-.00024	.00001	F .88183	.03491	-.00022	-.00093	.00095	-.00287
Stddev	.00005	.218	.00049	.00088	.00039	.00006	.00702	.00143	.00021	.00007	.00008	.00011
%RSD	1.4713	.45470	15.511	245.63	159.12	403.18	.79616	4.0897	96.627	7.3921	7.9614	3.8337

#1	.00332	47.790	.00283	.00098	.00003	.00005	.88680	.03390	-.00007	-.00097	.00100	-.00279
#2	.00325	48.098	.00353	-.00026	-.00052	-.00003	.87687	.03592	-.00037	-.00088	.00090	-.00295

Check ?	None	Chk Pass	None	None	None	None	Chk Fail	None	None	None	None	None
Value							1.0000					
Range							-10.490%					

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	46.173	.27592	.00477	-.01594	-.00164	-.00059	237.41	.00111	.00677	.00290	F 4.2130	-.00671
Stddev	.016	.01142	.00114	.00113	.00000	.00028	2.22	.00016	.00241	.00152	.0727	.00135
%RSD	.03419	4.1388	23.831	7.0727	.22845	47.292	.93591	14.620	35.613	52.259	1.7245	20.168

#1	46.162	.26785	.00397	-.01515	-.00164	-.00079	235.84	.00122	.00847	.00397	4.2643	-.00576
#2	46.184	.28400	.00558	-.01674	-.00164	-.00040	238.98	.00099	.00506	.00183	4.1616	-.00767

Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None	Chk Fail	None
Value											5.0000	
Range											-10.490%	

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00195	-.00142	-.00304	-.00197	.00050	4.8469	-.01582	.00465	10.042	.00301	.00122	.06643
Stddev	.00169	.00647	.01385	.00098	.00004	.0060	.00053	.00006	.064	.00048	.00004	.00119
%RSD	86.864	455.05	455.05	49.669	8.0247	.12299	3.3539	1.3526	.63439	15.990	3.0384	1.7898

#1	.00315	-.00600	-.01284	-.00267	.00053	4.8427	-.01544	.00461	10.087	.00267	.00120	.06559
#2	.00075	.00315	.00675	-.00128	.00047	4.8512	-.01619	.00470	9.9967	.00336	.00125	.06727

Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3337.9	59641.	6419.3
Stddev	.5	31.	68.8
%RSD	.01542	.05197	1.0724

#1	3338.2	59662.	6467.9
#2	3337.5	59619.	6370.6

Sample Name: CCV-3305006 Acquired: 6/5/2015 21:52:38 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50414	.45994	F .87898	.45907	.48921	W .44916	-.00195	4.8288	.45276	.48374	.47134
Stddev	.00421	.00116	.00044	.00077	.00820	.00765	.00045	.1154	.00003	.00090	.00196
%RSD	.83550	.25282	.05044	.16744	1.6753	1.7030	23.296	2.3890	.00713	.18691	.41587

#1	.50712	.46076	.87866	.45961	.48342	.44375	-.00227	4.7472	.45274	.48310	.46996
#2	.50117	.45912	.87929	.45853	.49501	.45457	-.00162	4.9104	.45278	.48438	.47273

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Warn	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			1.0000			.50000					
Range			-10.490%			-10.000%					

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46428	2.2654	48.605	.94093	19.903	.49957	F .43630	4.9246	.48506	.91039	.95321
Stddev	.00215	.0542	.843	.01367	.083	.00207	.00238	.0861	.00061	.00003	.00673
%RSD	.46311	2.3943	1.7345	1.4525	.41870	.41406	.54461	1.7480	.12661	.00359	.70610

#1	.46580	2.2271	48.009	.93127	19.962	.50103	.43462	4.8638	.48463	.91037	.94845
#2	.46276	2.3038	49.202	.95060	19.844	.49810	.43798	4.9855	.48550	.91042	.95797

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass					
Value							.50000				
Range							-10.490%				

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00790	F .89369	F .86449	4.5230	9.6793	F .87161	.45697	.00097	.49599	.90087	-.03001
Stddev	.00118	.00646	.01058	.1039	.2223	.00575	.00718	.00203	.00245	.00170	.02756
%RSD	14.949	.72264	1.2233	2.2964	2.2964	.65970	1.5718	209.78	.49328	.18819	91.840

#1	.00707	.88912	.85701	4.4496	9.5221	.86754	.45189	.00240	.49772	.89967	-.04951
#2	.00874	.89826	.87197	4.5965	9.8365	.87567	.46205	-.00047	.49426	.90207	-.01052

Check ?	None	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass	Chk Pass	None
Value		1.0000	1.0000			1.0000					
Range		-10.490%	-10.490%			-10.490%					

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.51104	.49461	.47091
Stddev	.00167	.00251	.01179
%RSD	.32660	.50845	2.5046

#1	.51222	.49639	.46257
#2	.50986	.49283	.47925

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3387.8	61169.	6447.7
Stddev	7.3	155.	64.4
%RSD	.21409	.25393	.99918

#1	3382.7	61059.	6493.3
#2	3392.9	61279.	6402.2

Sample Name: CCB Acquired: 6/5/2015 21:55:07 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00041	-.00048	.00050	-.00048	-.00053	-.00025	-.00286	-.00387	-.00015	.00010	.00051	-.00085
Stddev	.00013	.00022	.00177	.00028	.00012	.00006	.00051	.00547	.00003	.00036	.00005	.00011
%RSD	31.377	45.957	350.87	59.021	22.933	25.864	17.916	141.56	17.039	378.95	9.6572	12.526

#1	.00050	-.00033	.00175	-.00028	-.00062	-.00020	-.00250	-.00774	-.00013	-.00016	.00055	-.00092
#2	.00032	-.00064	-.00075	-.00068	-.00044	-.00029	-.00322	.00000	-.00017	.00035	.00048	-.00077

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03845	.16007	.00191	-.00588	.00030	.00027	.11529	-.00013	.00109	.00218	.00753	.00143
Stddev	.00182	.10545	.00228	.00092	.00017	.00001	.01326	.00024	.00445	.00121	.00271	.00036
%RSD	4.7392	65.876	119.34	15.593	57.549	3.3456	11.506	189.97	407.88	55.245	35.996	24.921

#1	.03716	.08551	.00352	-.00523	.00018	.00028	.10591	-.00030	.00424	.00304	.00945	.00168
#2	.03973	.23463	.00030	-.00652	.00042	.00026	.12467	.00004	-.00206	.00133	.00562	.00118

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F.00632	.01751	.03748	-.00002	.00002	.00388	-.00019	.00049	-.03052	-.00049	.00035	.00089
Stddev	.00319	.02385	.05105	.00038	.00007	.00136	.00007	.00138	.04271	.00019	.00006	.00276
%RSD	50.448	136.21	136.21	1888.6	364.50	35.159	35.870	284.72	139.94	39.059	15.968	309.74

#1	.00407	.00065	.00138	-.00029	.00007	.00484	-.00024	-.00049	-.00032	-.00036	.00039	.00285
#2	.00858	.03438	.07357	.00025	-.00003	.00291	-.00014	.00146	-.06072	-.00063	.00031	-.00106

Check ?	Chk Fail	Chk Pass										
High Limit	.00500											
Low Limit	-.00500											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3343.9	60879.	6417.2
Stddev	5.0	400.	75.0
%RSD	.15048	.65661	1.1681

#1	3347.4	60596.	6470.2
#2	3340.3	61161.	6364.2

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01070	.09719	.01450	.09408	.00988	.00074	.10089	.19794	.00455	.01028	.01040	.01421
Stddev	.00075	.00165	.00127	.00086	.00048	.00001	.00006	.00015	.00020	.00014	.00002	.00060
%RSD	7.0317	1.6978	8.7745	.91764	4.8921	1.1640	.05765	.07542	4.4279	1.3329	.19421	4.2354

#1	.01017	.09836	.01360	.09347	.01023	.00073	.10093	.19805	.00470	.01018	.01038	.01464
#2	.01123	.09603	.01540	.09469	.00954	.00074	.10084	.19784	.00441	.01038	.01041	.01379

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .15458	3.2586	F .01346	.21774	.01170	.01759	1.1005	.04098	2.7199	.00986	.00559	.00978
Stddev	.00278	.0422	.00131	.00166	.00021	.00005	.0200	.00079	.0015	.00014	.00080	.00242
%RSD	1.7991	1.2945	9.7303	.76435	1.8191	.30365	1.8178	1.9220	.05582	1.4631	14.296	24.755

#1	.15655	3.2884	.01438	.21656	.01186	.01755	1.0864	.04043	2.7188	.00996	.00615	.01149
#2	.15261	3.2288	.01253	.21891	.01155	.01763	1.1147	.04154	2.7209	.00976	.00502	.00807

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value	.10000		.01000									
Range	30.000%		30.000%									

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01832	.44597	.95437	.09159	.00964	.01772	.00932	.01841	F .00721	.01032	.02240	.01820
Stddev	.00318	.01719	.03678	.00054	.00002	.00169	.00025	.00299	.00874	.00041	.00054	.00054
%RSD	17.338	3.8536	3.8536	.59182	.19784	9.5394	2.7256	16.249	121.29	3.9885	2.4052	2.9780

#1	.02056	.43381	.92836	.09120	.00963	.01892	.00950	.02053	.00103	.01061	.02278	.01782
#2	.01607	.45812	.98037	.09197	.00965	.01653	.00914	.01630	.01339	.01003	.02201	.01859

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass							
Value									.06000			
Range									-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3427.7	62280.	6521.3
Stddev	1.0	188.	29.7
%RSD	.02828	.30213	.45602

#1	3428.3	62413.	6500.2
#2	3427.0	62147.	6542.3

Sample Name: 280-70157-A-2-A Acquired: 6/5/2015 22:00:09 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280387 6010c

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00018	.09628	.00247	.07874	.00039	-0.00017	-0.00284	.13332	-0.00018
Stddev	.00090	.00052	.00617	.00099	.00006	.00002	.00221	.00577	.00026
%RSD	492.12	.54241	249.87	1.2523	14.180	11.012	77.601	4.3299	144.83

#1	-0.00082	.09665	-0.00189	.07804	.00043	-0.00018	-0.00440	.12923	.00000
#2	.00046	.09591	.00683	.07944	.00035	-0.00015	-0.00128	.13740	-0.00036

Check ? Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00047	.00808	.00684	.01246	.42277	.04659	.02956	.00040	.00232
Stddev	.00012	.00009	.00055	.00075	.01287	.00030	.00054	.00001	.00020
%RSD	25.129	1.1678	8.1042	6.0438	3.0440	.64759	1.8402	2.9905	8.7118

#1	-0.00039	.00801	.00645	.01192	.43187	.04680	.02918	.00041	.00217
#2	-0.00055	.00814	.00723	.01299	.41367	.04637	.02995	.00039	.00246

Check ? Chk Pass
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	145.41	.00033	.00548	.00337	37.455	-0.00160	.00854	9.6962	20.750
Stddev	.15	.00008	.00335	.00094	.266	.00199	.00244	.1059	.227
%RSD	.10461	22.910	61.144	27.801	.70912	124.27	28.611	1.0917	1.0917

#1	145.52	.00038	.00785	.00403	37.643	-0.00301	.01027	9.6214	20.590
#2	145.30	.00028	.00311	.00270	37.267	-0.00019	.00681	9.7711	20.910

Check ? Chk Pass
 High Limit
 Low Limit

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00021	.00131	.00351	-0.00014	.00156	-0.02236	.01466	.18908	.00194
Stddev	.00107	.00000	.00062	.00034	.00145	.01915	.00076	.00073	.00028
%RSD	508.05	.20395	17.632	242.35	93.244	85.674	5.1790	.38496	14.650

#1	-0.00097	.00131	.00308	-0.00038	.00259	-0.00881	.01519	.18857	.00214
#2	.00055	.00131	.00395	.00010	.00053	-0.03590	.01412	.18960	.00174

Check ? Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3326.1	59276.	6469.8
Stddev	2.1	251.	139.6
%RSD	.06263	.42286	2.1572

#1	3327.6	59099.	6568.5
#2	3324.7	59453.	6371.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.07730	.00180	.18294	.04393	-.00022	-.00220	27.149	-.00015
Stddev	.00010	.00087	.00430	.00040	.00081	.00009	.00038	.122	.00003
%RSD	116.15	1.1266	238.95	.22034	1.8340	41.123	17.158	.44973	21.830

#1	.00015	.07792	-.00124	.18265	.04336	-.00029	-.00246	27.063	-.00013
#2	.00001	.07669	.00484	.18322	.04450	-.00016	-.00193	27.235	-.00017

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00084	.01039	.00452	.03499	3.5759	.06091	9.7403	.00547	.00449
Stddev	.00015	.00014	.00058	.00059	.0423	.00035	.0191	.00001	.00026
%RSD	17.481	1.3624	12.790	1.6885	1.1845	.57935	.19565	.27247	5.8675

#1	-.00094	.01049	.00493	.03457	3.5459	.06116	9.7538	.00548	.00468
#2	-.00073	.01029	.00411	.03541	3.6058	.06066	9.7268	.00546	.00431

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	280.02	.00076	.05519	.00414	93.350	.00107	.00824	14.053	30.074
Stddev	1.74	.00007	.00014	.00211	.054	.00203	.00478	.016	.034
%RSD	.61992	9.7350	.25099	50.941	.05736	188.81	57.963	.11198	.11198

#1	278.80	.00070	.05528	.00265	93.313	.00251	.01162	14.065	30.098
#2	281.25	.00081	.05509	.00563	93.388	-.00036	.00487	14.042	30.050

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00056	.39153	.00299	-.00018	-.00144	-.02172	.02115	.05325	.00844
Stddev	.00001	.00138	.00117	.00043	.00061	.01326	.00006	.00144	.00004
%RSD	2.6040	.35330	39.196	239.78	42.399	61.040	.28323	2.7065	.42016

#1	.00057	.39055	.00382	-.00048	-.00188	-.03109	.02120	.05223	.00841
#2	.00055	.39250	.00216	.00012	-.00101	-.01235	.02111	.05427	.00846

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3300.7	58571.	6408.8
Stddev	24.7	109.	56.8
%RSD	.74951	.18674	.88601

#1	3283.2	58648.	6448.9
#2	3318.2	58493.	6368.6

Sample Name: 280-70157-B-4-A Acquired: 6/5/2015 22:05:28 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280387 6010c

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00005	.15969	.00852	.21018	.03816	-.00013	-.00423	18.991	-.00003
Stddev	.00003	.00068	.00095	.00536	.00107	.00002	.00027	.358	.00004
%RSD	55.425	.42686	11.181	2.5516	2.8091	13.372	6.4485	1.8837	155.77

#1	.00006	.15921	.00919	.20639	.03740	-.00014	-.00404	18.738	-.00006
#2	.00003	.16018	.00784	.21397	.03892	-.00012	-.00443	19.244	.00000

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00120	.01181	.03592	.07273	3.6520	.06631	9.8538	.00197	.00629
Stddev	.00052	.00028	.00052	.00152	.1285	.00288	.0094	.00005	.00008
%RSD	43.442	2.3319	1.4552	2.0947	3.5194	4.3495	.09498	2.5020	1.3117

#1	-.00083	.01161	.03629	.07165	3.5611	.06427	9.8604	.00200	.00623
#2	-.00157	.01200	.03555	.07381	3.7429	.06835	9.8472	.00193	.00635

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	344.26	.00075	.04791	.00334	114.20	.00039	.00767	14.949	31.990
Stddev	6.28	.00018	.00021	.00080	.31	.00048	.00341	.533	1.140
%RSD	1.8252	24.345	.44763	23.931	.26945	122.40	44.400	3.5643	3.5643

#1	339.82	.00087	.04807	.00277	113.98	.00073	.00527	14.572	31.184
#2	348.71	.00062	.04776	.00391	114.42	.00005	.01008	15.325	32.796

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00013	.34366	.00115	.00090	-.00077	-.02063	.02379	.06882	.00022
Stddev	.00025	.00582	.00123	.00031	.00318	.02965	.00017	.00030	.00150
%RSD	187.88	1.6936	107.01	34.104	415.21	143.71	.70002	.43240	677.33

#1	-.00004	.33955	.00028	.00068	-.00302	.00033	.02391	.06861	.00129
#2	.00031	.34778	.00201	.00112	.00148	-.04159	.02367	.06903	-.00084

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3229.6	57543.	6447.4
Stddev	5.2	339.	69.9
%RSD	.16054	.58863	1.0848

#1	3226.0	57783.	6496.8
#2	3233.3	57304.	6397.9

Sample Name: 280-70157-A-5-A Acquired: 6/5/2015 22:08:12 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280387 6010c

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00117	.00337	.04158	.51644	.29137	-.00020	-.01159	253.12	.00004
Stddev	.00073	.00002	.00385	.00103	.00209	.00013	.00020	1.74	.00001
%RSD	62.602	.57982	9.2595	.19892	.71687	64.432	1.7520	.68874	29.007

#1	.00169	.00335	.04430	.51572	.28989	-.00011	-.01145	251.89	.00005
#2	.00065	.00338	.03885	.51717	.29284	-.00029	-.01174	254.36	.00003

Check ?
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00121	.00141	.02200	4.7824	28.797	.08793	46.226	2.5149	.00742
Stddev	.00014	.00064	.00022	.0282	.229	.00103	.033	.0032	.00001
%RSD	11.325	45.440	.98620	.58919	.79545	1.1731	.07129	.12816	.17425

#1	-.00131	.00186	.02185	4.7625	28.635	.08866	46.249	2.5172	.00741
#2	-.00111	.00096	.02216	4.8023	28.959	.08720	46.203	2.5126	.00742

Check ?
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	117.42	.00105	W 5.2515	.01000	28.521	.00723	.01417	W 53.865	115.27
Stddev	2.06	.00028	.0071	.00048	.543	.00092	.00123	.265	.57
%RSD	1.7571	26.432	.13527	4.8396	1.9043	12.753	8.6937	.49249	.49249

#1	115.96	.00085	5.2565	.01034	28.905	.00788	.01329	53.678	114.87
#2	118.88	.00125	5.2465	.00965	28.137	.00658	.01504	54.053	115.67

Check ?
 High Limit
 Low Limit

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00027	2.7761	.00239	-.00049	-.00839	-.03562	.01050	.06550	.00111
Stddev	.00002	.0177	.00113	.00039	.00059	.02742	.00022	.00058	.00040
%RSD	7.4568	.63708	47.162	78.959	6.9838	76.959	2.0609	.87813	36.173

#1	.00025	2.7636	.00159	-.00077	-.00797	-.05501	.01034	.06590	.00082
#2	.00028	2.7886	.00318	-.00022	-.00880	-.01624	.01065	.06509	.00139

Check ?
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3239.8	57870.	6459.4
Stddev	7.1	222.	7.5
%RSD	.21783	.38399	.11554

#1	3234.8	57713.	6464.7
#2	3244.8	58027.	6454.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00036	-.00093	.04362	.54087	.24604	-.00023	-.00911	255.55	.00009
Stddev	.00022	.00017	.00464	.00135	.00216	.00007	.00063	3.13	.00011
%RSD	61.047	18.497	10.644	.24868	.87914	28.775	6.9391	1.2238	117.50

#1	.00020	-.00106	.04690	.53992	.24451	-.00027	-.00867	253.33	.00017
#2	.00051	-.00081	.04034	.54182	.24757	-.00018	-.00956	257.76	.00002

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00186	.00150	-.00006	1.0901	29.546	.09251	47.082	1.6723	.00756
Stddev	.00010	.00041	.00060	.0282	.358	.00203	.249	.0041	.00035
%RSD	5.3232	27.247	1039.5	2.5884	1.2124	2.1935	.52949	.24321	4.5776

#1	-.00179	.00121	.00037	1.0702	29.292	.09108	46.906	1.6694	.00731
#2	-.00193	.00179	-.00048	1.1101	29.799	.09395	47.259	1.6751	.00780

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	118.25	.00048	W 2.1692	.00849	29.142	.00342	.01192	W 53.836	115.21
Stddev	1.29	.00041	.0102	.00139	.712	.00236	.00165	.786	1.68
%RSD	1.0868	85.642	.46975	16.421	2.4425	68.959	13.872	1.4591	1.4591

#1	117.34	.00019	2.1764	.00947	29.645	.00509	.01309	53.281	114.02
#2	119.16	.00077	2.1620	.00750	28.638	.00175	.01075	54.392	116.40

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass
High Limit			2.0000					50.000	
Low Limit			-1.0000					-1.0000	

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00027	2.8216	.00162	-.00057	-.00729	-.03876	.00134	.02002	.00268
Stddev	.00015	.0372	.00057	.00007	.00034	.00999	.00027	.00053	.00150
%RSD	54.736	1.3171	35.308	11.777	4.6553	25.784	20.470	2.6611	55.924

#1	.00016	2.7953	.00202	-.00062	-.00753	-.04583	.00153	.02040	.00374
#2	.00037	2.8479	.00121	-.00053	-.00705	-.03170	.00114	.01964	.00162

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3176.4	57511.	6399.8
Stddev	3.9	110.	57.5
%RSD	.12342	.19137	.89824

#1	3173.7	57589.	6440.4
#2	3179.2	57433.	6359.1

Sample Name: CCVH-3304613 Acquired: 6/5/2015 22:13:23 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00262	47.831	-.00146	-.00015	-.00055	.00001	F .89224	.03368	-.00036	-.00100	.00101	-.00186
Stddev	.00033	.089	.00088	.00104	.00003	.00000	.00400	.00200	.00014	.00013	.00022	.00027
%RSD	12.411	.18654	60.228	699.12	5.9227	28.485	.44884	5.9262	38.117	12.676	21.726	14.521

#1	.00239	47.894	-.00084	.00058	-.00052	.00002	.89507	.03510	-.00026	-.00091	.00116	-.00205
#2	.00285	47.768	-.00209	-.00088	-.00057	.00001	.88941	.03227	-.00045	-.00109	.00085	-.00167

Check ?	None	Chk Pass	None	None	None	None	Chk Fail	None	None	None	None	None
Value							1.0000					
Range							-10.490%					

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	46.043	.20739	.00465	-.01654	-.00154	-.00013	238.38	.00116	.00627	.00119	F 4.2458	-.00687
Stddev	.955	.01445	.00023	.00431	.00005	.00002	.10	.00037	.00389	.00008	.0822	.00407
%RSD	2.0742	6.9679	5.0115	26.054	3.0251	16.172	.04180	31.786	62.022	7.0512	1.9351	59.305

#1	46.718	.19718	.00448	-.01959	-.00151	-.00015	238.45	.00142	.00352	.00113	4.3039	-.00975
#2	45.368	.21761	.00481	-.01350	-.00157	-.00012	238.31	.00090	.00902	.00125	4.1877	-.00399

Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None	Chk Fail	None
Value											5.0000	
Range											-10.490%	

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00259	.02605	.05574	-.00176	.00040	4.8304	-.01599	.00275	9.9884	.00335	.00084	.06839
Stddev	.00422	.00702	.01503	.00032	.00009	.0108	.00074	.00016	.2010	.00075	.00037	.00188
%RSD	163.15	26.960	26.960	18.359	22.101	.22265	4.6413	5.9159	2.0121	22.312	43.952	2.7490

#1	-.00040	.03101	.06637	-.00199	.00046	4.8381	-.01652	.00286	9.8463	.00387	.00058	.06972
#2	.00557	.02108	.04512	-.00153	.00034	4.8228	-.01547	.00263	10.131	.00282	.00110	.06706

Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3316.6	59464.	6303.7
Stddev	6.1	341.	1.3
%RSD	.18330	.57407	.01991

#1	3312.3	59223.	6302.8
#2	3320.9	59705.	6304.6

Sample Name: CCV-3305006 Acquired: 6/5/2015 22:15:57 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50133	.45566	F .86844	.45246	.48492	F .44572	-.00135	4.8053	W .44922	.47930	.46724
Stddev	.00219	.00310	.00868	.00342	.00626	.00572	.00367	.0624	.00237	.00248	.00010
%RSD	.43589	.68000	1.0000	.75558	1.2914	1.2834	272.76	1.2980	.52854	.51703	.02236

#1	.49978	.45785	.87458	.45488	.48049	.44167	.00125	4.7612	.45089	.47755	.46732
#2	.50287	.45347	.86230	.45004	.48935	.44976	-.00395	4.8494	.44754	.48106	.46717

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass	Chk Warn	Chk Pass	Chk Pass
Value			1.0000			.50000			.50000		
Range			-10.490%			-10.490%			-10.000%		

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46001	W 2.2465	48.368	.93864	19.764	.49575	F .43382	4.9212	.48022	.90325	.94897
Stddev	.00273	.0332	.534	.00987	.032	.00015	.00227	.0469	.00206	.00356	.00513
%RSD	.59294	1.4776	1.1042	1.0513	.16206	.03062	.52350	.95333	.42934	.39382	.54033

#1	.45808	2.2230	47.990	.93166	19.741	.49585	.43222	4.8880	.47876	.90073	.94534
#2	.46193	2.2700	48.746	.94562	19.787	.49564	.43543	4.9544	.48168	.90576	.95259

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		2.5000					.50000				
Range		-10.000%					-10.490%				

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01110	F .88127	F .85971	4.5628	9.7643	F .86723	.45382	.00076	.48807	F .89278	-.05226
Stddev	.00354	.00495	.00041	.1231	.2634	.00756	.00622	.00049	.00533	.00171	.04120
%RSD	31.868	.56117	.04803	2.6976	2.6976	.87145	1.3697	64.295	1.0922	.19164	78.840

#1	.00860	.87778	.86000	4.4757	9.5781	.86188	.44942	.00111	.48430	.89157	-.02312
#2	.01360	.88477	.85941	4.6498	9.9506	.87257	.45822	.00042	.49184	.89399	-.08139

Check ?	None	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass	Chk Fail	None
Value		1.0000	1.0000			1.0000				1.0000	
Range		-10.490%	-10.490%			-10.490%				-10.490%	

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.50375	.49049	.47678
Stddev	.00005	.00475	.01329
%RSD	.00946	.96798	2.7874

#1	.50371	.49384	.46739
#2	.50378	.48713	.48618

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3382.0	61191.	6479.3
Stddev	8.0	65.	60.3
%RSD	.23581	.10650	.93107

#1	3387.7	61145.	6522.0
#2	3376.4	61237.	6436.7

Sample Name: CCB Acquired: 6/5/2015 22:18:26 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0019	-0.0087	W .00583	-0.0139	-0.0045	.00007	.00342	-0.0096	-0.0031	.00036	.00033
Stddev	.00013	.00015	.00087	.00099	.00019	.00004	.00016	.00655	.00009	.00008	.00024
%RSD	68.054	17.034	14.883	71.362	42.496	53.845	4.6146	684.55	28.277	22.428	73.078

#1	-0.0010	-0.0076	.00645	-0.0069	-0.0032	.00010	.00354	.00368	-0.0037	.00042	.00051
#2	-0.0028	-0.0097	.00522	-0.0209	-0.0059	.00005	.00331	-0.0559	-0.0025	.00030	.00016

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass							
High Limit			.00500								
Low Limit			-.00500								

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0260	.00375	.22095	.00554	-0.00400	.00004	.00022	.08122	.00034	.00080	.00291
Stddev	.00082	.00442	.01460	.00034	.00327	.00009	.00004	.01148	.00027	.00080	.00087
%RSD	31.423	117.88	6.6091	6.2205	81.664	230.93	19.872	14.134	78.550	100.49	29.738

#1	-0.0202	.00062	.23128	.00578	-0.0169	-0.0002	.00025	.08934	.00015	.00023	.00230
#2	-0.0318	.00688	.21063	.00529	-0.0631	.00010	.00019	.07310	.00053	.00137	.00353

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01841	-0.00124	.00359	.01482	.03171	-0.00044	.00011	F .01123	.00008	.00160	-.02675
Stddev	.00290	.00045	.00113	.01563	.03345	.00063	.00010	.00029	.00014	.00201	.02511
%RSD	15.733	36.233	31.308	105.46	105.46	141.78	93.670	2.5947	181.82	125.63	93.838

#1	.01637	-.00156	.00439	.02587	.05536	.00000	.00004	.01144	.00018	.00302	-.00900
#2	.02046	-.00092	.00280	.00377	.00806	-0.00089	.00018	.01103	-0.0002	.00018	-.04451

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass						
High Limit								.01000			
Low Limit								-.01000			

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00304	.00061	.00389
Stddev	.00003	.00094	.00233
%RSD	.98360	154.55	59.863

#1	.00302	-.00006	.00553
#2	.00307	.00128	.00224

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	5071.9	97962.	8306.6
Stddev	70.5	2498.	300.7
%RSD	1.3909	2.5503	3.6204

#1	5022.0	99729.	8093.9
#2	5121.8	96196.	8519.2

Sample Name: CCVL3312280 Acquired: 6/5/2015 22:20:48 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01077	.10019	.01293	.09390	.01010	.00083	.09957	.19977	.00450	.00996	.01008	.01328
Stddev	.00022	.00092	.00380	.00089	.00013	.00001	.00210	.01184	.00007	.00028	.00018	.00030
%RSD	2.0420	.92167	29.396	.94948	1.2734	1.8054	2.1068	5.9245	1.5024	2.7817	1.8349	2.2294

#1	.01061	.10084	.01562	.09453	.01019	.00084	.10105	.20814	.00445	.01015	.01021	.01307
#2	.01092	.09954	.01024	.09327	.01001	.00082	.09809	.19140	.00455	.00976	.00995	.01349

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09707	3.4217	F .01585	.22258	.01096	.01793	1.1391	.04086	2.7198	.00951	.00906	.00854
Stddev	.00008	.0415	.00152	.00942	.00009	.00031	.0421	.00009	.0197	.00002	.00022	.00158
%RSD	.08369	1.2131	9.5883	4.2318	.78418	1.7072	3.6933	.20968	.72523	.20000	2.4458	18.565

#1	.09701	3.4511	.01693	.22924	.01090	.01772	1.1689	.04092	2.7337	.00953	.00922	.00966
#2	.09713	3.3924	.01478	.21592	.01102	.01815	1.1094	.04080	2.7059	.00950	.00890	.00741

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .02177	.47243	1.0110	.09102	.00996	.01925	.00990	.01613	.05987	.00988	.02241	.01550
Stddev	.00092	.02165	.0463	.00066	.00028	.00011	.00019	.00015	.03185	.00065	.00005	.00065
%RSD	4.2456	4.5833	4.5833	.72939	2.7936	.58660	1.9665	.94281	53.194	6.5340	.20954	4.1781

#1	.02112	.48774	1.0438	.09149	.01015	.01917	.00976	.01603	.08239	.00942	.02244	.01596
#2	.02242	.45712	.97824	.09055	.00976	.01933	.01004	.01624	.03735	.01033	.02238	.01505

Check ?	Chk Fail	Chk Pass										
Value	.01500											
Range	30.000%											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3353.8	61073.	6329.7
Stddev	8.6	56.	27.1
%RSD	.25637	.09245	.42846

#1	3359.9	61113.	6310.5
#2	3347.7	61033.	6348.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0015	.00272	.00219	-0.0024	-0.00035	-0.0013	-0.00269	.00191	-0.00036
Stddev	.00046	.00015	.00545	.00007	.00010	.00004	.00219	.00382	.00001
%RSD	310.58	5.5741	248.67	27.731	27.156	31.476	81.710	199.44	1.9387

#1	-0.0047	.00283	-0.0166	-0.0019	-0.0028	-0.0016	-0.0113	.00461	-0.0036
#2	.00018	.00262	.00604	-0.0029	-0.0042	-0.0010	-0.0424	-0.00079	-0.0037

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0010	.00029	-0.00113	.04931	.21028	.00272	-0.00528	.00058	.00002
Stddev	.00012	.00008	.00035	.00479	.01014	.00209	.00174	.00001	.00033
%RSD	120.88	27.825	31.118	9.7137	4.8241	76.669	32.913	.94550	1495.0

#1	-0.0018	.00023	-0.00088	.04592	.21745	.00420	-0.00651	.00057	-0.0021
#2	-0.0001	.00034	-0.0138	.05269	.20311	.00125	-0.00405	.00058	.00025

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09617	-0.00048	-0.00040	-0.00040	.00687	-0.00091	W .00791	.01816	.03887
Stddev	.00475	.00007	.00007	.00073	.00592	.00134	.00231	.00222	.00474
%RSD	4.9417	14.924	17.363	185.18	86.255	145.99	29.219	12.196	12.196

#1	.09953	-0.00043	-0.00045	.00012	.01106	-0.00186	.00627	.01660	.03552
#2	.09281	-0.00053	-0.00035	-0.00092	.00268	.00003	.00954	.01973	.04223

Check ?	Chk Pass	Chk Warn	Chk Pass	None					
High Limit							.00750		
Low Limit							-0.00750		

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0062	.00007	.00361	-0.00028	.00090	-0.01025	-0.00013	.00073	.00143
Stddev	.00049	.00006	.00231	.00042	.00157	.02141	.00076	.00084	.00379
%RSD	80.446	83.243	64.151	148.33	173.82	208.96	578.09	115.47	265.05

#1	-0.0096	.00011	.00197	.00001	-0.0021	.00489	.00040	.00013	.00411
#2	-0.0027	.00003	.00524	-0.00058	.00201	-0.02539	-0.00067	.00133	-0.0125

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3335.8	61238.	6356.6
Stddev	10.4	178.	45.0
%RSD	.31120	.29115	.70866

#1	3328.5	61364.	6324.8
#2	3343.2	61112.	6388.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05234	1.7534	F .87424	.92779	1.9601	.04513	1.8049	47.237	.09103
Stddev	.00005	.0009	.00378	.00052	.0262	.00037	.0000	.668	.00021
%RSD	.10507	.04945	.43262	.05606	1.3362	.81177	.00076	1.4145	.23224

#1	.05230	1.7540	.87157	.92815	1.9416	.04487	1.8049	46.764	.09118
#2	.05238	1.7528	.87692	.92742	1.9786	.04539	1.8050	47.709	.09088

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit			1.1050						
Low Limit			.87500						

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46877	F .17707	.23566	.91520	48.848	.94347	49.577	.50419	.90639
Stddev	.00078	.00033	.00040	.00534	.833	.01401	.179	.00158	.00056
%RSD	.16537	.18464	.16927	.58342	1.7044	1.4846	.36161	.31409	.06224

#1	.46823	.17730	.23594	.91142	48.259	.93357	49.704	.50531	.90679
#2	.46932	.17684	.23538	.91897	49.437	.95338	49.450	.50307	.90599

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.561	.46779	9.3105	.47581	1.7939	.46208	1.7579	9.3468	20.002
Stddev	.886	.00072	.0021	.00032	.0101	.00285	.0037	.1464	.313
%RSD	1.7188	.15401	.02226	.06670	.56411	.61734	.20842	1.5663	1.5663

#1	50.934	.46728	9.3091	.47558	1.8010	.46410	1.7553	9.2432	19.781
#2	52.187	.46830	9.3120	.47603	1.7867	.46006	1.7605	9.4503	20.224

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.7450	.91567	.97857	.98324	F 1.7514	1.9997	.50880	.48070	.49750
Stddev	.0019	.01164	.00747	.00075	.0055	.0101	.00236	.00213	.00634
%RSD	.10930	1.2717	.76289	.07660	.31229	.50333	.46364	.44224	1.2748

#1	1.7463	.90744	.98385	.98377	1.7475	2.0068	.51047	.48220	.49302
#2	1.7436	.92391	.97329	.98270	1.7552	1.9926	.50713	.47920	.50198

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					2.2000				
Low Limit					1.7600				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3221.0	58299.	6357.3
Stddev	5.6	142.	86.3
%RSD	.17285	.24325	1.3581

#1	3224.9	58199.	6418.3
#2	3217.0	58399.	6296.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05095	W 1.7428	F .87353	.91598	1.9851	.04489	1.7802	47.724	.09031
Stddev	.00069	.0047	.00924	.00079	.0221	.00025	.0133	.546	.00054
%RSD	1.3487	.27017	1.0575	.08614	1.1140	.55662	.74511	1.1443	.60332

#1	.05144	1.7462	.86700	.91654	1.9694	.04471	1.7896	47.337	.09070
#2	.05047	1.7395	.88007	.91543	2.0007	.04506	1.7708	48.110	.08993

Check ?	Chk Pass	Chk Warn	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit		2.2250	1.1050						
Low Limit		1.7500	.87500						

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46798	F .17685	.23240	.90785	49.485	.95116	49.455	.49982	.90294
Stddev	.00054	.00087	.00077	.01421	.626	.00964	.105	.00040	.00178
%RSD	.11478	.49138	.33240	1.5655	1.2648	1.0139	.21178	.07915	.19671

#1	.46836	.17746	.23295	.89780	49.042	.94435	49.529	.50010	.90420
#2	.46760	.17623	.23186	.91790	49.927	.95798	49.380	.49954	.90169

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.105	.46685	9.2478	.47384	1.6959	.45187	1.7298	9.2904	19.882
Stddev	.099	.00106	.0184	.00009	.0033	.00051	.0096	.1020	.218
%RSD	.19339	.22692	.19892	.01815	.19688	.11326	.55594	1.0982	1.0982

#1	51.175	.46760	9.2608	.47391	1.6935	.45223	1.7366	9.2183	19.727
#2	51.035	.46610	9.2348	.47378	1.6982	.45150	1.7230	9.3626	20.036

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.7267	.91874	.98213	.98211	F 1.7257	2.0241	.51228	.48441	.50141
Stddev	.0000	.00844	.00009	.00183	.0089	.0588	.00045	.00068	.00575
%RSD	.00153	.91887	.00885	.18665	.51719	2.9041	.08755	.13944	1.1459

#1	1.7267	.91277	.98207	.98341	1.7320	2.0656	.51260	.48393	.49735
#2	1.7267	.92471	.98219	.98081	1.7193	1.9825	.51197	.48489	.50547

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					2.2000				
Low Limit					1.7600				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3218.2	57770.	6252.6
Stddev	9.1	179.	95.6
%RSD	.28339	.31046	1.5287

#1	3211.8	57896.	6320.2
#2	3224.7	57643.	6185.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00058	.00224	.00083	.00084	.00043	-.00011	.00092	.02364	-.00022
Stddev	.00017	.00022	.00115	.00114	.00028	.00010	.00053	.00689	.00005
%RSD	30.171	9.7765	138.14	136.58	63.628	88.711	57.278	29.135	23.531

#1	.00070	.00239	.00165	.00164	.00063	-.00004	.00055	.02851	-.00018
#2	.00045	.00208	.00002	.00003	.00024	-.00018	.00129	.01877	-.00026

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00018	.00067	.02001	.00534	.19972	.00337	-.00165	.00059	.00049
Stddev	.00018	.00016	.00044	.00026	.06333	.00010	.00482	.00005	.00011
%RSD	100.76	24.319	2.2004	4.9297	31.708	3.0083	292.31	7.7595	23.141

#1	-.00005	.00079	.02032	.00553	.15494	.00345	.00176	.00062	.00057
#2	-.00031	.00056	.01970	.00515	.24450	.00330	-.00505	.00055	.00041

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.12856	.00064	.00219	.00212	.03210	.00016	.00376	.13333	.28533
Stddev	.00219	.00021	.00099	.00049	.00066	.00134	.00249	.00739	.01581
%RSD	1.7042	32.027	45.400	23.111	2.0447	849.38	66.253	5.5417	5.5417

#1	.13011	.00079	.00289	.00177	.03164	.00111	.00553	.12811	.27415
#2	.12701	.00050	.00149	.00246	.03257	-.00079	.00200	.13856	.29651

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00084	.00035	.00307	-.00008	.00197	-.01458	-.00024	.00342	.00059
Stddev	.00057	.00006	.00013	.00014	.00120	.01523	.00091	.00010	.00256
%RSD	67.964	17.574	4.2457	176.59	60.746	104.45	383.53	2.8376	433.96

#1	-.00044	.00039	.00298	-.00018	.00112	-.02535	-.00088	.00349	-.00122
#2	-.00124	.00030	.00316	.00002	.00282	-.00381	.00040	.00335	.00240

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3377.0	61300.	6425.2
Stddev	9.7	85.	62.7
%RSD	.28749	.13871	.97535

#1	3370.2	61240.	6469.5
#2	3383.9	61360.	6380.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00013	.00352	-.00262	.00079	.00020	-.00014	-.00028	.22591	-.00017
Stddev	.00062	.00081	.00152	.00050	.00052	.00004	.00077	.00049	.00015
%RSD	485.76	22.894	58.075	63.681	264.48	31.740	276.27	.21661	89.575

#1	.00057	.00295	-.00154	.00114	.00056	-.00011	-.00083	.22556	-.00006
#2	-.00031	.00409	-.00369	.00043	-.00017	-.00017	.00027	.22626	-.00028

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.00065	.02056	.05038	.20164	.00304	.00201	.00118	.00002
Stddev	.00012	.00041	.00066	.00101	.03754	.00326	.00210	.00008	.00001
%RSD	138.41	63.837	3.2316	2.0005	18.617	107.34	104.61	7.1007	27.875

#1	.00017	.00036	.02009	.05109	.17510	.00534	.00349	.00124	.00002
#2	.00000	.00094	.02102	.04966	.22819	.00073	.00052	.00112	.00003

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08501	.00062	.00104	.00222	.01567	-.00259	.00866	.13176	.28197
Stddev	.00405	.00022	.00118	.00086	.00101	.00015	.00154	.02916	.06240
%RSD	4.7606	35.394	113.15	38.514	6.4429	5.7037	17.768	22.132	22.132

#1	.08787	.00046	.00021	.00282	.01639	-.00249	.00757	.11114	.23784
#2	.08215	.00077	.00187	.00162	.01496	-.00269	.00975	.15238	.32610

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00033	.00063	.00268	.00000	.00284	-.02549	-.00006	.00311	.00422
Stddev	.00065	.00007	.00130	.0003	.00062	.02369	.00049	.00072	.00187
%RSD	198.54	10.667	48.704	9264.2	21.704	92.948	832.18	23.168	44.309

#1	-.00078	.00058	.00175	.00019	.00328	-.00874	-.00041	.00260	.00290
#2	.00013	.00067	.00360	-.00020	.00241	-.04225	.00029	.00362	.00554

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3455.6	62855.	6604.2
Stddev	6.4	130.	22.5
%RSD	.18408	.20697	.34022

#1	3451.1	62763.	6588.3
#2	3460.1	62947.	6620.1

Sample Name: 280-70022-E-1-K Acquired: 6/5/2015 22:35:27 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280389 6010c

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00107	-.00330	.00287	.42497	.05032	-.00014	-.00345	184.13	-.00059
Stddev	.00012	.00043	.00106	.00156	.00004	.00003	.00011	1.40	.00024
%RSD	11.110	13.078	36.850	.36624	.08198	18.447	3.1684	.76155	40.766

#1	.00099	-.00300	.00362	.42387	.05035	-.00016	-.00338	185.12	-.00042
#2	.00116	-.00361	.00212	.42607	.05029	-.00012	-.00353	183.14	-.00076

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01903	.00081	-.00071	11.076	3.7033	.00636	24.098	6.7951	-.00356
Stddev	.00043	.00002	.00105	.104	.0304	.00076	.062	.0403	.00008
%RSD	2.2384	2.2609	147.47	.93949	.82131	12.023	.25658	.59352	2.3341

#1	.01873	.00080	.00003	11.149	3.7248	.00582	24.054	6.8236	-.00362
#2	.01933	.00083	-.00145	11.002	3.6818	.00690	24.141	6.7666	-.00350

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.7250	.00583	.00072	.01115	92.892	.00323	.01019	5.6621	12.117
Stddev	.0590	.00079	.00478	.00275	.173	.00157	.00076	.0086	.018
%RSD	.67685	13.547	666.06	24.628	.18606	48.600	7.4392	.15137	.15137

#1	8.7667	.00527	.00410	.00921	92.770	.00433	.00965	5.6560	12.104
#2	8.6832	.00639	-.00266	.01309	93.014	.00212	.01073	5.6682	12.130

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00069	.88116	.00469	-.00070	-.00712	W -.05811	-.00048	.00353	.00205
Stddev	.00016	.00644	.00145	.00027	.00112	.02076	.00100	.00065	.00057
%RSD	23.499	.73037	30.950	38.086	15.739	35.731	207.62	18.326	27.842

#1	.00080	.88571	.00572	-.00051	-.00632	-.04343	.00022	.00307	.00165
#2	.00057	.87661	.00367	-.00089	-.00791	-.07279	-.00118	.00398	.00246

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3347.2	60193.	6504.5
Stddev	18.2	268.	107.8
%RSD	.54492	.44486	1.6570

#1	3360.1	60003.	6428.3
#2	3334.3	60382.	6580.7

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .01110	46.537	k -.00172	k -.00010	k .00024	k -.00005	kF .86093	k .01567	k -.00098	k -.00024	k .00086
Stddev	.01183	.115	.00043	.00106	.00024	.00006	.03150	.01572	.00093	.00123	.00028
%RSD	106.57	.24713	25.019	1092.5	102.10	123.06	3.6592	100.32	95.059	519.50	33.042

#1	k .01947	46.456	k -.00142	k .00065	k .00041	k -.00009	k .83865	k .00456	k -.00164	k .00063	k .00106
#2	.00274	46.618	-.00203	-.00084	.00007	-.00001	.88321	.02679	-.00032	-.00111	.00066

Check ?	None	Chk Pass	None	None	None	None	Chk Fail	None	None	None	None
Value							1.0000				
Range							-10.490%				

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00166	kF 44.528	.25430	.00438	k -.02998	k -.00101	k -.00067	232.24	k .00086	k .00277	k .00684
Stddev	.00559	1.159	.08928	.00288	.01262	.00069	.00046	1.10	.00006	.00446	.00460
%RSD	337.10	2.6021	35.108	65.772	42.104	68.376	67.899	.47175	6.7407	160.81	67.229

#1	k .00561	k 43.708	.19117	.00641	k -.03891	k -.00052	k -.00100	231.47	k .00082	k .00593	k .01008
#2	-.00229	45.347	.31743	.00234	-.02105	-.00150	-.00035	233.02	.00090	-.00038	.00359

Check ?	None	Chk Fail	None	None	None	None	None	Chk Pass	None	None	None
Value		50.000									
Range		-10.490%									

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	kF 4.1900	k -.01554	k -.00205	k -.00065	k -.00139	k -.00155	.00042	k 4.8854	k -.00026	k .00467	k 9.8633
Stddev	.0234	.01647	.00001	.00620	.01327	.00089	.00009	.1960	.02069	.00062	.0544
%RSD	.55943	106.02	.62991	956.67	956.67	57.567	22.504	4.0117	7944.5	13.168	.55190

#1	k 4.1734	k -.02719	k -.00206	k -.00503	k -.01077	k -.00092	.00035	k 5.0240	k .01437	k .00424	k 9.9018
#2	4.2066	-.00389	-.00204	.00374	.00799	-.00219	.00048	4.7468	-.01489	.00511	9.8248

Check ?	Chk Fail	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	5.0000										
Range	-10.490%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	k .00009	k .00055	k .18625
Stddev	.00446	.00015	.17069
%RSD	5140.1	27.955	91.645

#1	k -.00307	k .00044	k .30695
#2	.00324	.00066	.06556

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3429.1	60649.	6628.2
Stddev	8.0	66.	72.9
%RSD	.23402	.10833	1.0992

#1	3434.7	60602.	6679.8
#2	3423.4	60695.	6576.7

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51412	.46129	F .88394	.46405	.49293	.45062	-.00212	4.8050	.46033	.48552	.47226
Stddev	.00252	.00019	.00177	.00263	.00510	.00333	.00092	.0123	.00014	.00342	.00196
%RSD	.48961	.04063	.19995	.56682	1.0353	.73792	43.128	.25622	.03059	.70521	.41422

#1	.51590	.46116	.88269	.46219	.48932	.44827	-.00148	4.7963	.46043	.48794	.47364
#2	.51234	.46143	.88519	.46591	.49654	.45297	-.00277	4.8137	.46023	.48310	.47088

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			1.0000								
Range			-10.490%								

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47295	W 2.2470	48.903	.94524	20.169	.50216	F .43587	4.9323	.48681	.92528	.96774
Stddev	.00110	.0101	.491	.00934	.138	.00195	.00425	.0318	.00450	.00722	.01498
%RSD	.23195	.44883	1.0041	.98824	.68326	.38738	.97468	.64368	.92494	.77990	1.5478

#1	.47373	2.2399	48.556	.93864	20.266	.50354	.43887	4.9098	.48999	.93038	.97833
#2	.47218	2.2542	49.250	.95185	20.071	.50079	.43286	4.9547	.48362	.92017	.95714

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		2.5000					.50000				
Range		-10.000%					-10.490%				

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00720	.91830	F .88221	4.5014	9.6329	F .87909	.45873	.00215	.49427	.91025	-.03250
Stddev	.00448	.01451	.01122	.0554	.1185	.01917	.00403	.00160	.00653	.01963	.02171
%RSD	62.241	1.5798	1.2723	1.2303	1.2303	2.1803	.87786	74.417	1.3215	2.1570	66.813

#1	.00403	.92856	.89015	4.4622	9.5491	.89264	.45588	.00328	.49889	.92414	-.04785
#2	.01036	.90805	.87427	4.5405	9.7167	.86553	.46158	.00102	.48965	.89637	-.01714

Check ?	None	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass	Chk Pass	None
Value			1.0000			1.0000					
Range			-10.490%			-10.490%					

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.51116	.49588	.47350
Stddev	.00254	.00020	.00063
%RSD	.49682	.04027	.13305

#1	.51296	.49573	.47394
#2	.50936	.49602	.47305

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3404.6	61049.	6605.9
Stddev	7.8	415.	27.0
%RSD	.22965	.67935	.40800

#1	3399.1	60756.	6625.0
#2	3410.2	61342.	6586.9

Sample Name: CCB Acquired: 6/5/2015 22:43:14 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00031	.00001	.00148	-.00061	-.00049	-.00015	-.00080	-.00365	-.00027	.00022	.00048	-.00124
Stddev	.00062	.00016	.00294	.00037	.00049	.00002	.00310	.00155	.00005	.00029	.00024	.00014
%RSD	198.59	1474.4	198.90	60.521	101.63	12.952	389.64	42.460	17.334	131.42	50.154	11.183

#1	-.00013	.00012	.00356	-.00035	-.00084	-.00016	-.00299	-.00256	-.00030	.00002	.00065	-.00114
#2	.00075	-.00010	-.00060	-.00087	-.00014	-.00014	.00140	-.00475	-.00024	.00043	.00031	-.00134

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	.22525	.00110	.00003	.00002	.00000	.09197	-.00028	-.00047	.00207	.00867	-.00023
Stddev	.00157	.01923	.00125	.00149	.00001	.0001	.00639	.00061	.00268	.00140	.00448	.00148
%RSD	1366.2	8.5377	114.47	4783.5	41.869	7257.2	6.9532	217.09	567.29	67.687	51.638	641.67

#1	-.00099	.21165	.00021	.00108	.00002	-.00005	.09649	-.00071	-.00237	.00108	.01183	.00081
#2	.00122	.23885	.00198	-.00102	.00001	.00004	.08744	.00015	.00142	.00305	.00550	-.00127

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .01013	.00060	.00129	-.00069	.00006	.00371	-.00024	.00230	-.02915	.00036	.00067	.00389
Stddev	.00326	.01053	.02253	.00008	.00000	.00187	.00010	.00077	.00595	.00034	.00049	.00267
%RSD	32.142	1740.3	1740.3	12.030	4.2330	50.356	41.481	33.591	20.396	95.305	72.976	68.535

#1	.01244	-.00684	-.01464	-.00063	.00006	.00239	-.00017	.00284	-.03335	.00060	.00101	.00578
#2	.00783	.00805	.01723	-.00075	.00006	.00503	-.00031	.00175	-.02494	.00012	.00032	.00201

Check ?	Chk Fail	Chk Pass										
High Limit	.00500											
Low Limit	-.00500											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3442.3	62266.	6630.4
Stddev	2.1	199.	15.3
%RSD	.06138	.31973	.23120

#1	3440.8	62125.	6641.3
#2	3443.8	62407.	6619.6

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01002	.09482	.01259	.09227	.00953	F .00068	.09853	.19311	.00433	.01031	.01029	.01332
Stddev	.00033	.00014	.00317	.00075	.00019	.00007	.00142	.00371	.00017	.00029	.00025	.00096
%RSD	3.2494	.14834	25.152	.80786	1.9413	10.606	1.4462	1.9226	3.9519	2.7926	2.4373	7.2256

#1	.00979	.09492	.01035	.09280	.00940	.00073	.09953	.19573	.00445	.01051	.01011	.01400
#2	.01025	.09472	.01482	.09174	.00966	.00063	.09752	.19048	.00421	.01010	.01047	.01264

Check ?	Chk Pass	Chk Fail	Chk Pass									
Value						.00100						
Range						-30.000%						

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09107	3.2468	.01279	.21200	.01057	.01707	1.0789	.04004	2.6616	.00968	.01138	.00859
Stddev	.00137	.0238	.00066	.00320	.00008	.00043	.0217	.00083	.0082	.00100	.00252	.00170
%RSD	1.5005	.73148	5.1746	1.5115	.78706	2.5254	2.0145	2.0607	.30951	10.316	22.143	19.736

#1	.09203	3.2636	.01232	.20974	.01051	.01737	1.0942	.04063	2.6675	.01038	.01316	.00739
#2	.09010	3.2300	.01326	.21427	.01063	.01676	1.0635	.03946	2.6558	.00897	.00960	.00979

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .02033	.44548	.95333	.08765	.00944	.01793	.00977	.01688	.06042	.01091	.02257	.01659
Stddev	.00073	.01896	.04058	.00214	.00004	.00005	.00015	.00181	.02569	.00037	.00043	.00048
%RSD	3.5834	4.2567	4.2567	2.4441	.42147	.27381	1.5277	10.741	42.523	3.4013	1.9149	2.8776

#1	.02084	.45889	.98203	.08613	.00947	.01796	.00987	.01816	.07859	.01117	.02226	.01625
#2	.01981	.43207	.92464	.08916	.00941	.01789	.00966	.01560	.04226	.01064	.02287	.01693

Check ?	Chk Fail	Chk Pass										
Value	.01500											
Range	30.000%											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3510.3	63115.	6671.6
Stddev	.5	41.	4.3
%RSD	.01551	.06494	.06479

#1	3510.6	63144.	6674.7
#2	3509.9	63086.	6668.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00064	.03268	-.00168	.06486	.13483	-.00014	-.00303	82.816	.00006
Stddev	.00005	.00062	.00326	.00012	.00001	.00001	.00060	.150	.00006
%RSD	8.2234	1.9098	193.74	.18223	.00658	3.7497	19.977	.18118	105.81

#1	.00067	.03224	.00062	.06494	.13482	-.00015	-.00345	82.710	.00010
#2	.00060	.03313	-.00398	.06478	.13484	-.00014	-.00260	82.922	.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00108	.00112	.00010	6.4984	3.6641	.00570	10.412	.67271	-.00170
Stddev	.00015	.00026	.00033	.0560	.0820	.00056	.018	.00006	.00043
%RSD	13.657	23.197	339.09	.86230	2.2372	9.8773	.17209	.00847	24.971

#1	.00118	.00093	.00033	6.5381	3.7221	.00530	10.425	.67267	-.00140
#2	.00098	.00130	-.00014	6.4588	3.6061	.00609	10.400	.67275	-.00200

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9474	.00450	.10449	.00801	.27695	.00040	.01300	5.0300	10.764
Stddev	.0418	.00003	.00004	.00190	.00001	.00058	.00067	.0381	.081
%RSD	2.1461	.66677	.03779	23.669	.00448	145.95	5.1826	.75670	.75670

#1	1.9769	.00452	.10452	.00667	.27695	-.00001	.01348	5.0570	10.822
#2	1.9178	.00447	.10446	.00935	.27696	.00081	.01252	5.0031	10.707

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.26903	.00527	-.00005	-.00673	W -.06469	-.00021	.01924	.00277
Stddev	.00069	.00034	.00010	.00027	.00096	.01444	.00006	.00134	.00066
%RSD	2721.9	.12484	1.8938	517.85	14.204	22.324	26.721	6.9486	23.848

#1	.00051	.26927	.00534	.00014	-.00740	-.07490	-.00025	.01830	.00324
#2	-.00046	.26880	.00520	-.00024	-.00605	-.05448	-.00017	.02019	.00230

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3348.8	60525.	6577.0
Stddev	5.9	114.	79.4
%RSD	.17717	.18797	1.2073

#1	3344.6	60605.	6633.1
#2	3353.0	60444.	6520.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00035	.00684	.00364	.01329	.02871	-.00012	-.00269	17.769	-.00019
Stddev	.00012	.00069	.00287	.00113	.00041	.00008	.00067	.060	.00008
%RSD	35.780	10.056	78.935	8.5071	1.4140	65.660	24.860	.33724	41.934

#1	.00026	.00733	.00567	.01409	.02842	-.00007	-.00316	17.727	-.00014
#2	.00043	.00636	.00161	.01249	.02900	-.00018	-.00222	17.811	-.00025

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00054	.00040	-.00028	1.4063	.92622	.00213	2.2933	.14622	-.00052
Stddev	.00009	.00012	.00016	.0107	.01860	.00156	.0139	.00037	.00010
%RSD	17.485	29.554	59.463	.76062	2.0078	73.288	.60654	.25316	18.616

#1	.00060	.00048	-.00016	1.3988	.91307	.00103	2.2835	.14649	-.00059
#2	.00047	.00032	-.00039	1.4139	.93937	.00323	2.3032	.14596	-.00045

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47052	.00146	.02007	.00333	.05840	-.00052	.00552	1.0552	2.2581
Stddev	.02170	.00022	.00140	.00019	.00205	.00246	.00302	.0178	.0381
%RSD	4.6118	14.961	6.9778	5.5750	3.5091	476.60	54.661	1.6849	1.6849

#1	.45517	.00161	.01908	.00320	.05695	-.00226	.00766	1.0426	2.2312
#2	.48586	.00130	.02106	.00346	.05985	.00122	.00339	1.0678	2.2850

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00282	.05864	.00439	-.00036	-.00055	W -.05143	-.00015	.00659	.00162
Stddev	.00024	.00097	.00168	.00001	.00102	.00110	.00065	.00095	.00111
%RSD	8.4481	1.6502	38.359	1.7833	187.24	2.1360	438.25	14.466	68.185

#1	.00299	.05796	.00558	-.00036	.00018	-.05221	-.00061	.00591	.00084
#2	.00265	.05933	.00320	-.00036	-.00127	-.05066	.00031	.00726	.00241

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3417.0	61668.	6551.1
Stddev	1.9	60.	23.9
%RSD	.05549	.09804	.36445

#1	3415.7	61626.	6568.0
#2	3418.4	61711.	6534.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05346	1.8144	.89941	1.0062	2.1265	.04512	F 1.8378	130.45	.09259
Stddev	.00025	.0025	.00524	.0025	.0070	.00020	.0120	.31	.00015
%RSD	.46566	.13937	.58215	.25251	.33060	.44889	.65263	.23461	.15907

#1	.05364	1.8126	.89570	1.0080	2.1215	.04498	1.8463	130.24	.09270
#2	.05329	1.8161	.90311	1.0044	2.1314	.04526	1.8294	130.67	.09249

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46727	W .18072	.24307	7.2897	53.418	.96304	60.720	1.1646	.90213
Stddev	.00073	.00014	.00121	.0120	.192	.00092	.193	.0019	.00005
%RSD	.15637	.07982	.49751	.16408	.35854	.09530	.31750	.16147	.00563

#1	.46676	.18082	.24393	7.2813	53.283	.96239	60.857	1.1660	.90217
#2	.46779	.18062	.24222	7.2982	53.554	.96369	60.584	1.1633	.90210

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	53.345	.46920	W 9.7155	.47946	2.0565	.47277	1.8015	14.235	30.464
Stddev	.107	.00125	.0063	.00183	.0036	.00113	.0003	.016	.034
%RSD	.20090	.26548	.06443	.38239	.17709	.23854	.01702	.11240	.11240

#1	53.269	.46832	9.7200	.48076	2.0590	.47197	1.8017	14.224	30.440
#2	53.420	.47008	9.7111	.47816	2.0539	.47356	1.8012	14.247	30.488

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.7328	1.1953	.98862	.99304	1.7375	2.0346	.51729	.49450	.49732
Stddev	.0080	.0039	.00057	.00290	.0013	.0496	.00329	.00469	.00208
%RSD	.46293	.32667	.05755	.29194	.07236	2.4385	.63637	.94941	.41840

#1	1.7271	1.1925	.98822	.99509	1.7384	2.0697	.51962	.49118	.49584
#2	1.7384	1.1980	.98902	.99099	1.7366	1.9995	.51497	.49782	.49879

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3293.3	58800.	6551.7
Stddev	.3	71.	34.8
%RSD	.00836	.12107	.53054

#1	3293.5	58750.	6527.2
#2	3293.1	58850.	6576.3

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05395	1.8666	W 2.4306	.92438	1.0436	2.2133	.04721	F 1.8887	135.96
Stddev	.00065	.0045	.0290	.00363	.0001	.0084	.00066	.0025	.57
%RSD	1.1961	.23997	1.1927	.39238	.01237	.37864	1.4007	.13448	.42151

#1	.05349	1.8635	2.4511	.92694	1.0435	2.2074	.04674	1.8905	135.56
#2	.05441	1.8698	2.4101	.92181	1.0436	2.2193	.04768	1.8870	136.37

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00					.10000	
Low Limit			3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09551	.48222	W .18791	.25029	7.6545	55.604	.99848	62.598	1.2103
Stddev	.00002	.00040	.00003	.00183	.0787	.253	.00401	.023	.0002
%RSD	.02181	.08331	.01784	.73177	1.0281	.45449	.40119	.03624	.01940

#1	.09552	.48194	.18793	.25159	7.5989	55.426	.99565	62.582	1.2101
#2	.09549	.48251	.18788	.24900	7.7102	55.783	1.0013	62.614	1.2104

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.10000						
Low Limit			-.01000						

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.93558	55.539	.48550	W 10.017	.49407	2.1392	.49332	1.8622	14.957
Stddev	.00363	.188	.00092	.005	.00003	.0019	.00558	.0105	.130
%RSD	.38796	.33833	.19051	.05053	.00533	.08845	1.1307	.56267	.86906

#1	.93815	55.672	.48616	10.013	.49405	2.1379	.48938	1.8548	14.865
#2	.93302	55.407	.48485	10.020	.49409	2.1406	.49727	1.8696	15.049

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				2.0000					
Low Limit				-1.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	32.008	1.7979	1.2421	1.0256	1.0282	1.7811	2.1289	.53367	.51245
Stddev	.278	.0193	.0029	.0033	.0013	.0159	.0272	.00125	.00416
%RSD	.86906	1.0756	.23068	.32169	.12511	.89369	1.2782	.23471	.81096

#1	31.811	1.7842	1.2401	1.0279	1.0273	1.7698	2.1482	.53278	.50951
#2	32.204	1.8115	1.2442	1.0233	1.0291	1.7924	2.1097	.53455	.51539

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.52216
Stddev	.00906
%RSD	1.7352

#1	.51575
#2	.52857

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-70022-E-2-I MSD Acquired: 6/5/2015 22:55:59 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 280389 6010c

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	3310.2	59259.	6591.3
Stddev	.7	188.	.8
%RSD	.02038	.31758	.01249
#1	3310.6	59392.	6591.9
#2	3309.7	59126.	6590.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05192	.91538	.18001	.15724	.23325	.04565	-.00218	101.92	.04607
Stddev	.00017	.00194	.00527	.00046	.00193	.00030	.00486	.67	.00045
%RSD	.32427	.21176	2.9282	.29099	.82740	.66112	222.45	.65901	.98533

#1	.05204	.91675	.17628	.15691	.23189	.04543	.00125	101.45	.04575
#2	.05180	.91401	.18374	.15756	.23461	.04586	-.00562	102.40	.04639

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04777	.04650	.04790	7.3718	23.269	.10260	30.080	.71687	.04154
Stddev	.00059	.00064	.00039	.0338	.271	.00072	.071	.00050	.00027
%RSD	1.2306	1.3754	.82376	.45783	1.1643	.70081	.23512	.07034	.64740

#1	.04735	.04605	.04762	7.3479	23.078	.10210	30.130	.71723	.04135
#2	.04818	.04695	.04818	7.3957	23.461	.10311	30.030	.71652	.04173

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.200	.05027	1.9575	.10375	.26621	.09323	.18464	9.6417	20.633
Stddev	.199	.00044	.0198	.00535	.00787	.00106	.00354	.0088	.019
%RSD	.85620	.88275	1.0131	5.1582	2.9558	1.1408	1.9196	.09114	.09114

#1	23.341	.04996	1.9434	.09997	.27177	.09399	.18213	9.6479	20.647
#2	23.060	.05058	1.9715	.10754	.26064	.09248	.18714	9.6355	20.620

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08598	.31766	.19999	.04889	.16783	.46893	.05186	.22120	.05305
Stddev	.00099	.00253	.00211	.00020	.00754	.00941	.00050	.00103	.00358
%RSD	1.1523	.79699	1.0547	.40041	4.4940	2.0059	.96431	.46733	6.7422

#1	.08528	.31587	.20149	.04903	.16250	.47559	.05151	.22193	.05558
#2	.08668	.31945	.19850	.04876	.17316	.46228	.05221	.22047	.05052

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3399.4	60927.	6646.9
Stddev	10.6	166.	31.4
%RSD	.31186	.27315	.47272

#1	3391.9	60809.	6669.1
#2	3406.8	61044.	6624.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00068	-.00319	-.00015	.46619	.05422	-.00017	-.00419	198.89	-.00028
Stddev	.00013	.00015	.00061	.00154	.00063	.00003	.00047	1.45	.00008
%RSD	18.464	4.7872	415.14	.32937	1.1610	15.638	11.225	.73049	28.896

#1	.00059	-.00308	-.00058	.46511	.05466	-.00016	-.00386	199.92	-.00034
#2	.00077	-.00330	.00028	.46728	.05377	-.00019	-.00452	197.86	-.00022

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02020	.00087	-.00100	11.897	3.9367	.00628	26.167	7.3550	-.00340
Stddev	.00021	.00021	.00024	.070	.0736	.00047	.049	.0262	.00007
%RSD	1.0216	24.055	23.880	.58904	1.8696	7.4813	.18754	.35594	1.9702

#1	.02035	.00072	-.00083	11.946	3.9887	.00595	26.202	7.3365	-.00335
#2	.02006	.00102	-.00117	11.847	3.8846	.00661	26.133	7.3735	-.00345

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 {57}	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.4157	W 10.497	.00652	.00137	.01141	101.96	.00473	.01380	5.9381
Stddev	.0440	.278	.00010	.00042	.00262	.47	.00213	.00384	.0765
%RSD	.46685	2.6444	1.6006	30.772	22.952	.45651	45.054	27.837	1.2879

#1	9.4468	10.301	.00659	.00167	.00956	101.63	.00624	.01652	5.9922
#2	9.3846	10.693	.00645	.00107	.01326	102.29	.00323	.01109	5.8841

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		500.00							
Low Limit		11.000							

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.708	.00036	.95276	.00379	-.00068	-.00947	-.02710	-.00087	.00301
Stddev	.164	.00027	.00403	.00113	.00002	.00005	.02901	.00031	.00096
%RSD	1.2879	76.110	.42313	29.849	2.9837	.51203	107.02	36.010	31.743

#1	12.823	.00056	.95561	.00299	-.00067	-.00944	-.00659	-.00109	.00233
#2	12.592	.00017	.94991	.00459	-.00070	-.00950	-.04761	-.00065	.00369

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 {99}
Units	ppm
Avg	.00289
Stddev	.00193
%RSD	66.820

#1	.00426
#2	.00153

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-70022-E-3-E Acquired: 6/5/2015 23:00:59 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 280389 6010c

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	3317.4	60233.	6600.5
Stddev	11.3	30.	71.8
%RSD	.34043	.04984	1.0881
#1	3325.4	60212.	6549.7
#2	3309.4	60255.	6651.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00000	.00030	-.00021	.00006	-.00039	-.00021	-.00034	.01741	-.00026
Stddev	.0004	.00000	.00083	.00017	.00005	.00008	.00086	.00185	.00008
%RSD	22461.	.51008	391.53	289.24	13.993	38.789	249.26	10.617	30.794

#1	-.00032	.00031	.00038	.00018	-.00043	-.00027	-.00095	.01610	-.00020
#2	.00031	.00030	-.00080	-.00006	-.00035	-.00016	.00026	.01872	-.00031

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	.00055	-.00169	.00184	.20894	.00266	.00190	.00031	.00000
Stddev	.00016	.00025	.00059	.00055	.01680	.00039	.00217	.00006	.0001
%RSD	172.62	45.785	34.731	29.758	8.0397	14.624	114.13	19.483	2813.7

#1	.00002	.00073	-.00210	.00222	.19706	.00238	.00344	.00027	.00006
#2	-.00021	.00037	-.00127	.00145	.22081	.00293	.00037	.00035	-.00007

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10657	.00003	-.00051	-.00113	.01462	-.00139	.00323	.02073	.04437
Stddev	.00028	.00008	.00227	.00185	.00673	.00181	.00097	.01370	.02931
%RSD	.26101	296.33	448.67	164.65	46.017	130.17	29.944	66.056	66.056

#1	.10677	.00008	.00110	-.00244	.01937	-.00011	.00391	.01105	.02365
#2	.10637	-.00003	-.00211	.00018	.00986	-.00267	.00255	.03042	.06510

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	.00021	.00434	-.00040	.00167	.00042	-.00047	.00079	.00090
Stddev	.00024	.00006	.00237	.00042	.00052	.02079	.00089	.00030	.00001
%RSD	155.67	26.475	54.511	106.94	31.239	5000.4	189.06	38.123	1.2140

#1	.00033	.00017	.00267	-.00010	.00204	.01512	.00016	.00100	.00090
#2	-.00002	.00025	.00602	-.00070	.00130	-.01429	-.00110	.00057	.00091

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3457.2	62572.	6602.1
Stddev	2.7	742.	26.6
%RSD	.07867	1.1866	.40219

#1	3455.3	62047.	6620.9
#2	3459.1	63097.	6583.4

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00268	47.981	.00130	-.00049	-.00009	.00009	F .89276	.03259	-.00014	-.00080	.00088	-.00222
Stddev	.00017	.313	.00360	.00032	.00005	.00002	.00377	.00454	.00001	.00004	.00008	.00055
%RSD	6.4104	.65213	277.62	64.979	48.406	20.257	.42192	13.917	8.5861	5.4613	9.2329	24.690

#1	.00256	48.202	-.00125	-.00072	-.00006	.00008	.89543	.03580	-.00013	-.00077	.00093	-.00261
#2	.00280	47.760	.00384	-.00027	-.00013	.00010	.89010	.02938	-.00015	-.00083	.00082	-.00184

Check ?	None	Chk Pass	None	None	None	None	Chk Fail	None	None	None	None	None
Value							1.0000					
Range							-10.490%					

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	45.797	.23981	.00358	-.00773	.00047	-.00055	237.03	.00155	.00331	.00105	F 4.2459	-.00573
Stddev	.725	.00645	.00143	.00275	.00007	.00034	1.59	.00005	.00236	.00108	.0332	.00246
%RSD	1.5838	2.6899	40.010	35.496	14.125	62.227	.67088	3.3810	71.198	103.50	.78270	43.018

#1	46.310	.24438	.00459	-.00968	.00042	-.00031	238.15	.00158	.00164	.00181	4.2694	-.00747
#2	45.284	.23525	.00256	-.00579	.00051	-.00079	235.90	.00151	.00498	.00028	4.2224	-.00399

Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None	Chk Fail	None
Value											5.0000	
Range											-10.490%	

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00203	-.03332	-.07131	-.00100	.00033	4.8044	-.01573	.00314	9.9600	.00255	.00028	.05920
Stddev	.00049	.00156	.00333	.00080	.00001	.0321	.00024	.00144	.0268	.00107	.00095	.00550
%RSD	23.957	4.6700	4.6700	79.803	1.5454	.66924	1.5195	45.918	.26884	41.831	342.66	9.2905

#1	.00237	-.03222	-.06896	-.00044	.00033	4.8272	-.01590	.00212	9.9411	.00180	-.00040	.06309
#2	.00168	-.03442	-.07367	-.00157	.00034	4.7817	-.01556	.00416	9.9790	.00331	.00095	.05531

Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3462.9	61531.	6573.7
Stddev	10.3	153.	25.4
%RSD	.29632	.24920	.38569

#1	3455.6	61422.	6591.6
#2	3470.1	61639.	6555.8

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51188	.45822	F .87446	.46088	.49358	W .44769	-.00435	4.8764	.45860	.47846	.47792
Stddev	.00162	.00038	.00270	.00223	.00405	.00242	.00139	.0113	.00212	.00201	.00147
%RSD	.31598	.08346	.30840	.48319	.82096	.53977	32.045	.23139	.46256	.42028	.30781

#1	.51302	.45795	.87255	.45931	.49072	.44598	-.00533	4.8684	.45710	.47704	.47688
#2	.51073	.45849	.87636	.46246	.49645	.44939	-.00336	4.8844	.46010	.47988	.47896

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Warn	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			1.0000			.50000					
Range			-10.490%			-10.000%					

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47115	2.2608	48.730	.93679	20.175	.49959	F .42709	4.9029	.47974	.90876	.95465
Stddev	.00106	.0049	.393	.00829	.018	.00032	.00115	.0148	.00291	.00516	.00437
%RSD	.22562	.21777	.80546	.88473	.09009	.06358	.26956	.30099	.60662	.56769	.45797

#1	.47191	2.2573	48.452	.93093	20.187	.49981	.42628	4.8925	.47768	.90511	.95156
#2	.47040	2.2642	49.007	.94265	20.162	.49937	.42790	4.9133	.48180	.91240	.95774

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass					
Value							.50000				
Range							-10.490%				

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01101	.90019	F .88022	4.5575	9.7531	F .86135	.45581	-.00010	.49127	W .89587	.00203
Stddev	.00101	.00069	.00651	.0928	.1987	.00288	.00234	.00048	.00455	.00434	.00242
%RSD	9.2051	.07707	.73994	2.0369	2.0369	.33408	.51341	459.06	.92671	.48494	119.06

#1	.01029	.89969	.87561	4.4919	9.6126	.85931	.45416	.00023	.49449	.89280	.00032
#2	.01172	.90068	.88482	4.6231	9.8935	.86338	.45747	-.00044	.48805	.89894	.00374

Check ?	None	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass	Chk Warn	None
Value			1.0000			1.0000				1.0000	
Range			-10.490%			-10.490%				-10.000%	

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.51081	.48923	.48592
Stddev	.00047	.00084	.00194
%RSD	.09217	.17250	.39953

#1	.51115	.48863	.48455
#2	.51048	.48983	.48729

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3518.9	62968.	6725.9
Stddev	3.8	173.	17.8
%RSD	.10750	.27548	.26477

#1	3521.6	63091.	6738.5
#2	3516.2	62846.	6713.3

Sample Name: CCB Acquired: 6/5/2015 23:11:07 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00013	.00297	.00118	.00044	-.00040	-.00014	-.00213	.02717	-.00025	.00021	.00029	-.00118
Stddev	.00023	.00031	.00074	.00071	.00004	.00010	.00155	.00390	.00001	.00000	.00021	.00053
%RSD	176.36	10.465	62.784	158.82	11.128	71.233	72.809	14.342	3.1318	1.1467	73.015	45.036

#1	-.00003	.00319	.00066	.00094	-.00043	-.00007	-.00103	.02993	-.00025	.00021	.00014	-.00081
#2	.00029	.00275	.00170	-.00005	-.00037	-.00022	-.00322	.02442	-.00026	.00021	.00044	-.00156

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00019	.12620	.00381	-.00272	.00009	-.00002	.07473	-.00035	-.00309	.00134	.00992	.00210
Stddev	.00054	.01134	.00030	.00256	.00005	.00012	.00095	.00034	.00040	.00016	.00076	.00148
%RSD	281.46	8.9824	7.8938	94.150	58.108	726.76	1.2677	98.366	13.101	11.596	7.6520	70.317

#1	.00058	.13422	.00402	-.00453	.00013	.00007	.07540	-.00059	-.00280	.00123	.01046	.00315
#2	-.00019	.11819	.00360	-.00091	.00005	-.00010	.07406	-.00011	-.00338	.00145	.00939	.00106

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F.00584	.01074	.02298	-.00052	.00010	.00471	-.00020	.00002	-.03539	.00045	.00014	.00100
Stddev	.00010	.01438	.03077	.00036	.00007	.00358	.00046	.00103	.02251	.00015	.00076	.00247
%RSD	1.6595	133.89	133.89	70.267	66.084	75.985	232.38	4790.1	63.614	32.712	549.74	246.68

#1	.00591	.02091	.04474	-.00077	.00005	.00218	.00013	-.00071	-.01947	.00034	.00067	-.00074
#2	.00577	.00057	.00122	-.00026	.00015	.00724	-.00052	.00075	-.05131	.00055	-.00040	.00274

Check ?	Chk Fail	Chk Pass										
High Limit	.00500											
Low Limit	-.00500											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3511.3	63780.	6755.3
Stddev	6.3	108.	9.4
%RSD	.17836	.16877	.13907

#1	3506.9	63856.	6761.9
#2	3515.8	63704.	6748.6

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01104	.09639	.01333	.09290	.00974	.00078	.09963	.19309	.00461	.01027	.01022	.01306
Stddev	.00049	.00037	.00002	.00142	.00008	.00006	.00172	.00247	.00026	.00025	.00021	.00010
%RSD	4.4216	.38759	.18162	1.5322	.85010	7.1933	1.7260	1.2797	5.5650	2.4772	2.0869	.78772

#1	.01139	.09665	.01334	.09390	.00968	.00074	.10085	.19484	.00443	.01045	.01037	.01299
#2	.01070	.09613	.01331	.09189	.00980	.00082	.09841	.19134	.00480	.01009	.01007	.01313

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09155	3.1899	F .01309	.21608	.01076	.01709	1.0604	.03989	2.6831	.01075	.01058	.01067
Stddev	.00004	.0215	.00031	.00156	.00008	.00028	.0006	.00017	.0132	.00136	.00134	.00151
%RSD	.03847	.67283	2.3697	.72361	.76383	1.6440	.05508	.43465	.49358	12.656	12.714	14.167

#1	.09152	3.2051	.01287	.21718	.01070	.01728	1.0608	.03977	2.6737	.01171	.00963	.01174
#2	.09157	3.1748	.01331	.21497	.01082	.01689	1.0600	.04001	2.6924	.00979	.01153	.00961

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .02138	.45552	.97481	.08811	.00941	.01866	.00975	.01554	F .04198	.01013	.02233	.01843
Stddev	.00465	.00630	.01348	.00101	.00001	.00063	.00039	.00118	.00928	.00022	.00159	.00364
%RSD	21.759	1.3825	1.3825	1.1424	.08394	3.3845	4.0164	7.5882	22.105	2.1656	7.1044	19.738

#1	.01809	.45107	.96528	.08740	.00940	.01821	.00948	.01471	.04854	.01029	.02345	.01585
#2	.02467	.45997	.98434	.08883	.00941	.01910	.01003	.01638	.03542	.00998	.02120	.02100

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass						
Value	.01500								.06000			
Range	30.000%								-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3583.9	64133.	6830.3
Stddev	1.0	237.	61.1
%RSD	.02820	.36942	.89438

#1	3584.6	63966.	6873.5
#2	3583.2	64301.	6787.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00083	.00292	-0.00072	-0.00126	.00046	-0.00006	.00160	F .20979	-0.00021
Stddev	.00029	.00025	.00079	.00014	.00036	.00004	.00151	.00065	.00030
%RSD	34.956	8.4498	110.50	10.903	77.896	62.409	94.271	.30873	141.87

#1	.00104	.00309	-0.0016	-0.00116	.00071	-0.00008	.00266	.20934	-0.00043
#2	.00063	.00274	-0.00128	-0.00136	.00020	-0.00003	.00053	.21025	.00000

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit								.20000	
Low Limit								-.20000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00023	.00042	-0.00139	.01297	.15362	.00223	-0.00058	.00043	-0.00002
Stddev	.00005	.00001	.00029	.00023	.07074	.00006	.00340	.00003	.00038
%RSD	21.829	1.5980	20.906	1.7967	46.050	2.5879	584.01	7.1696	1790.4

#1	.00019	.00042	-0.00119	.01314	.20364	.00219	-0.00298	.00041	-0.00029
#2	.00026	.00041	-0.00160	.01281	.10360	.00227	.00182	.00045	.00025

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05843	.00016	.00058	-0.00016	.01016	-0.00045	W .00792	-0.00023	-0.00049
Stddev	.00249	.00011	.00196	.00139	.00156	.00224	.00407	.00485	.01038
%RSD	4.2617	67.986	339.78	886.23	15.384	493.76	51.333	2111.3	2111.3

#1	.06019	.00023	.00196	.00082	.00905	-0.00204	.01080	.00320	.00685
#2	.05667	.00008	-0.00081	-0.00114	.01126	.00113	.00505	-0.00366	-0.00784

Check ?	Chk Pass	Chk Warn	Chk Pass	None					
High Limit							.00750		
Low Limit							-.00750		

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00057	.00023	.00339	-0.00005	.00173	-0.02765	-0.00027	.00337	.00394
Stddev	.00095	.00005	.00283	.00019	.00082	.05101	.00016	.00031	.00069
%RSD	166.97	22.150	83.344	390.14	47.174	184.46	58.364	9.0846	17.593

#1	.00010	.00020	.00539	.00008	.00231	-0.06372	-0.00039	.00359	.00345
#2	-0.00125	.00027	.00139	-0.00018	.00116	.00842	-0.00016	.00316	.00443

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3626.5	65322.	6935.9
Stddev	7.5	22.	17.7
%RSD	.20588	.03395	.25449

#1	3631.8	65306.	6923.4
#2	3621.2	65338.	6948.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05429	1.8075	.92834	.99357	2.0248	.04591	1.9017	48.639	.09549
Stddev	.00073	.0088	.00032	.00601	.0099	.00004	.0026	.235	.00020
%RSD	1.3426	.48681	.03419	.60509	.49056	.09083	.13670	.48217	.20475

#1	.05378	1.8013	.92812	.98932	2.0178	.04594	1.8998	48.473	.09562
#2	.05481	1.8137	.92856	.99782	2.0318	.04589	1.9035	48.805	.09535

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47974	F .19160	.24378	.94286	50.436	.96342	52.211	.50854	.90685
Stddev	.00048	.00040	.00148	.00827	.176	.00318	.204	.00116	.00049
%RSD	.09982	.20694	.60685	.87721	.34894	.32985	.39047	.22751	.05365

#1	.48008	.19188	.24274	.94871	50.311	.96117	52.067	.50936	.90720
#2	.47940	.19132	.24483	.93701	50.560	.96567	52.356	.50772	.90651

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.820	.48061	9.9186	.49450	1.8569	.48653	1.9327	9.2553	19.806
Stddev	.703	.00010	.0099	.00044	.0011	.00339	.0030	.1313	.281
%RSD	1.3563	.02079	.09937	.08837	.05690	.69628	.15502	1.4183	1.4183

#1	52.317	.48068	9.9117	.49480	1.8562	.48893	1.9349	9.3481	20.005
#2	51.323	.48054	9.9256	.49419	1.8577	.48414	1.9306	9.1625	19.608

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.7729	.93514	.99944	.99404	1.8094	2.0523	.52034	.49873	.50189
Stddev	.0162	.00304	.00126	.00225	.0150	.0125	.00059	.00109	.00229
%RSD	.91186	.32479	.12650	.22660	.82916	.60834	.11414	.21823	.45543

#1	1.7843	.93299	.99855	.99564	1.8200	2.0611	.51992	.49950	.50351
#2	1.7614	.93728	1.0003	.99245	1.7988	2.0434	.52076	.49796	.50027

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3462.3	61966.	6841.6
Stddev	3.3	120.	10.0
%RSD	.09506	.19335	.14673

#1	3464.7	61882.	6834.5
#2	3460.0	62051.	6848.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00037	.01518	.00435	.24502	.17279	-.00016	-.00283	126.44	-.00057
Stddev	.00045	.00013	.00007	.00082	.00108	.00002	.00388	1.16	.00012
%RSD	120.33	.83741	1.5055	.33458	.62646	9.8146	137.25	.91776	20.538

#1	.00069	.01527	.00440	.24444	.17202	-.00017	-.00008	125.62	-.00049
#2	.00006	.01509	.00430	.24560	.17355	-.00015	-.00557	127.26	-.00066

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00209	.00363	.00117	1.8360	13.960	.03423	31.753	.56838	.00265
Stddev	.00004	.00003	.00002	.0014	.127	.00122	.045	.00110	.00014
%RSD	1.7627	.69812	1.6665	.07535	.91203	3.5551	.14259	.19401	5.3120

#1	.00206	.00365	.00116	1.8350	13.870	.03337	31.721	.56916	.00255
#2	.00212	.00362	.00119	1.8369	14.050	.03509	31.785	.56760	.00275

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	106.12	.01177	.28600	.00975	56.858	.00250	.00937	3.2399	6.9333
Stddev	1.11	.00024	.00063	.00068	.269	.00128	.00121	.0072	.0154
%RSD	1.0418	2.0607	.22027	6.9701	.47224	51.087	12.907	.22253	.22253

#1	105.34	.01160	.28555	.00927	57.048	.00341	.01023	3.2450	6.9442
#2	106.90	.01194	.28645	.01023	56.668	.00160	.00852	3.2348	6.9224

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	1.3887	.00161	.00028	-.00565	-.03079	.00111	.01919	.00274
Stddev	.00096	.0123	.00112	.00004	.00116	.02287	.00004	.00032	.00064
%RSD	727.72	.88380	69.153	15.521	20.538	74.296	3.7140	1.6814	23.428

#1	-.00081	1.3800	.00082	.00031	-.00483	-.04696	.00108	.01942	.00320
#2	.00055	1.3974	.00240	.00025	-.00647	-.01461	.00114	.01897	.00229

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3449.6	61917.	6926.1
Stddev	7.5	108.	45.8
%RSD	.21768	.17447	.66136

#1	3444.3	61840.	6958.4
#2	3454.9	61993.	6893.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00037	.02120	-.00185	.02419	.17975	-.00016	-.00178	47.450	-.00019
Stddev	.00034	.00001	.00019	.00062	.00129	.00002	.00342	.136	.00028
%RSD	89.991	.06945	10.088	2.5477	.71779	12.466	191.81	.28646	147.27

#1	.00061	.02119	-.00171	.02463	.17884	-.00017	.00063	47.354	-.00038
#2	.00014	.02121	-.00198	.02376	.18066	-.00014	-.00420	47.547	.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	.00624	.00044	.03980	2.7404	.01859	11.627	.00395	-.00062
Stddev	.00018	.00024	.00019	.00240	.0416	.00061	.012	.00009	.00014
%RSD	196.97	3.8773	42.975	6.0181	1.5169	3.2836	.10501	2.3141	23.081

#1	-.00021	.00641	.00031	.03811	2.7110	.01816	11.636	.00389	-.00072
#2	.00004	.00607	.00057	.04149	2.7697	.01902	11.618	.00402	-.00052

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.837	.00019	.01911	.00607	12.813	.00179	.01076	8.9827	19.223
Stddev	.217	.00009	.00092	.00171	.104	.00173	.00165	.0982	.210
%RSD	1.0960	47.531	4.7973	28.130	.81464	96.354	15.311	1.0930	1.0930

#1	19.683	.00025	.01846	.00486	12.887	.00057	.01193	8.9133	19.074
#2	19.990	.00013	.01976	.00728	12.739	.00302	.00960	9.0521	19.372

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00067	.40552	.00252	-.00001	-.00260	.00020	.00325	.01363	.00312
Stddev	.00008	.00068	.00024	.00015	.00283	.00161	.00001	.00009	.00075
%RSD	11.352	.16837	9.5681	1467.1	109.03	814.62	.31613	.67297	24.113

#1	.00062	.40504	.00269	-.00012	-.00060	-.00094	.00325	.01369	.00365
#2	.00073	.40601	.00235	.00010	-.00460	.00133	.00326	.01356	.00258

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3547.3	63854.	7002.1
Stddev	1.4	196.	8.1
%RSD	.03902	.30753	.11562

#1	3548.3	63715.	6996.4
#2	3546.3	63993.	7007.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00034	.02340	.00269	.01925	.14752	-.00005	-.00090	39.739	-.00026
Stddev	.00044	.00025	.00313	.00009	.00134	.00007	.00048	.359	.00011
%RSD	130.12	1.0892	116.20	.46281	.90603	140.67	53.406	.90431	42.799

#1	.00003	.02358	.00490	.01931	.14658	-.00010	-.00056	39.485	-.00034
#2	.00065	.02322	.00048	.01918	.14847	.00000	-.00124	39.993	-.00018

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00013	.00207	-.00033	.02509	2.1905	.01898	10.732	.03137	-.00114
Stddev	.00037	.00022	.00036	.00042	.0505	.00141	.000	.00022	.00035
%RSD	292.38	10.462	110.49	1.6562	2.3056	7.4118	.00336	.69472	31.218

#1	-.00014	.00223	-.00059	.02480	2.1548	.01997	10.732	.03152	-.00089
#2	.00039	.00192	-.00007	.02538	2.2262	.01798	10.731	.03121	-.00139

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.676	.00123	.01542	.00541	15.100	-.00117	.00850	9.2693	19.836
Stddev	.031	.00001	.00421	.00128	.016	.00118	.00097	.1771	.379
%RSD	.16687	.88122	27.316	23.587	.10813	100.31	11.412	1.9110	1.9110

#1	18.698	.00124	.01244	.00631	15.088	-.00034	.00919	9.1441	19.568
#2	18.654	.00122	.01840	.00451	15.111	-.00201	.00782	9.3946	20.104

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00077	.33441	.00310	-.00021	-.00305	-.02751	.00215	.01496	.00321
Stddev	.00143	.00154	.00017	.00009	.00145	.00579	.00022	.00043	.00135
%RSD	185.27	.46145	5.5727	46.060	47.405	21.052	10.172	2.8426	41.872

#1	.00178	.33332	.00322	-.00027	-.00408	-.03161	.00199	.01466	.00416
#2	-.00024	.33550	.00298	-.00014	-.00203	-.02342	.00230	.01526	.00226

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3576.8	64320.	6967.2
Stddev	3.9	86.	111.3
%RSD	.10878	.13329	1.5969

#1	3574.1	64259.	7045.9
#2	3579.6	64380.	6888.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00102	.00886	.00269	.02481	.14296	-.00009	-.00152	37.115	.00001
Stddev	.00020	.00043	.00059	.00001	.00009	.00009	.00134	.028	.00011
%RSD	19.711	4.8652	21.767	.05989	.05986	99.195	88.044	.07592	1246.8

#1	.00088	.00916	.00228	.02482	.14302	-.00003	-.00057	37.095	.00008
#2	.00116	.00855	.00310	.02480	.14290	-.00016	-.00247	37.135	-.00007

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	.00134	-.00044	.05677	2.1514	.01886	9.9320	.00422	-.00030
Stddev	.00006	.00001	.00026	.00078	.0564	.00011	.0152	.00006	.00018
%RSD	47.273	.49460	59.627	1.3826	2.6228	.57422	.15338	1.3599	61.354

#1	-.00018	.00134	-.00063	.05732	2.1115	.01894	9.9428	.00418	-.00043
#2	-.00009	.00133	-.00026	.05621	2.1913	.01879	9.9213	.00426	-.00017

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.550	.00029	.01267	.00592	13.835	.00041	.00906	9.2623	19.821
Stddev	.060	.00024	.00179	.00039	.137	.00321	.00189	.0336	.072
%RSD	.30488	81.240	14.133	6.5796	.99101	779.11	20.842	.36315	.36315

#1	19.592	.00012	.01393	.00564	13.739	-.00186	.00773	9.2386	19.771
#2	19.507	.00046	.01140	.00619	13.932	.00268	.01040	9.2861	19.872

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00085	.32228	.00349	-.00044	-.00107	W -.05114	.00285	.02264	.00459
Stddev	.00123	.00046	.00106	.00006	.00282	.01255	.00085	.00010	.00108
%RSD	145.12	.14323	30.518	12.579	263.70	24.537	29.981	.42651	23.585

#1	.00171	.32261	.00424	-.00048	.00093	-.06001	.00345	.02271	.00536
#2	-.00002	.32195	.00274	-.00040	-.00307	-.04227	.00224	.02258	.00383

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3557.4	64038.	6988.5
Stddev	2.3	67.	16.6
%RSD	.06569	.10405	.23800

#1	3559.1	64085.	7000.3
#2	3555.8	63991.	6976.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00062	.51055	.00081	.11234	.03119	-.00017	-.00135	219.32	.00011
Stddev	.00001	.00539	.00783	.00047	.00040	.00005	.00291	.63	.00001
%RSD	2.2114	1.0556	963.74	.42223	1.2728	30.557	215.77	.28628	4.9844

#1	.00061	.50674	-.00472	.11267	.03147	-.00013	.00071	218.87	.00010
#2	.00062	.51436	.00635	.11200	.03091	-.00021	-.00341	219.76	.00011

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00273	.00256	.00269	.61338	2.8371	.02755	115.52	1.7393	.00140
Stddev	.00016	.00019	.00051	.00668	.1243	.00037	.47	.0052	.00067
%RSD	5.8866	7.2727	19.073	1.0891	4.3806	1.3592	.40754	.30135	47.724

#1	.00284	.00243	.00233	.60866	2.7492	.02729	115.85	1.7430	.00187
#2	.00262	.00269	.00306	.61811	2.9250	.02782	115.18	1.7356	.00093

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.542	.00952	.02080	.00912	91.084	.00547	.01082	10.584	22.650
Stddev	.205	.00088	.00148	.00135	.587	.00053	.00686	.098	.211
%RSD	1.1031	9.2137	7.1063	14.779	.64402	9.6299	63.350	.92971	.92971

#1	18.397	.00890	.02185	.01007	90.669	.00509	.01567	10.515	22.501
#2	18.686	.01014	.01976	.00817	91.499	.00584	.00597	10.654	22.799

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00016	.40059	.00313	.01427	-.00867	W -.06074	-.00047	.01289	.00527
Stddev	.00007	.00001	.00122	.00084	.00106	.02997	.00056	.00015	.00162
%RSD	41.270	.00342	39.140	5.8541	12.225	49.346	120.78	1.1486	30.709

#1	-.00021	.40058	.00399	.01368	-.00792	-.08193	-.00086	.01279	.00413
#2	-.00012	.40060	.00226	.01486	-.00941	-.03954	-.00007	.01300	.00642

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3400.7	61283.	6898.5
Stddev	7.2	172.	23.6
%RSD	.21028	.28146	.34235

#1	3405.7	61405.	6915.2
#2	3395.6	61161.	6881.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00026	.00227	-.00162	.13429	.40565	-.00013	-.00273	144.71	.00005
Stddev	.00026	.00010	.00144	.00112	.00128	.00003	.00117	.61	.00026
%RSD	98.919	4.5480	88.501	.83697	.31512	19.935	43.055	.42102	513.76

#1	.00045	.00235	-.00061	.13509	.40656	-.00015	-.00190	145.14	-.00013
#2	.00008	.00220	-.00264	.13350	.40475	-.00011	-.00356	144.28	.00023

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00036	.00134	-.00110	.01461	2.9223	.01763	95.454	.69648	-.00248
Stddev	.00012	.00014	.00041	.00174	.0124	.00189	.163	.00239	.00010
%RSD	34.585	10.779	37.422	11.918	.42263	10.740	.17029	.34323	4.1584

#1	-.00045	.00144	-.00081	.01338	2.9310	.01629	95.569	.69817	-.00255
#2	-.00027	.00124	-.00138	.01585	2.9135	.01897	95.339	.69479	-.00241

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.650	.00073	.01939	.00881	7.5925	.00100	.00758	12.422	26.583
Stddev	.565	.00034	.00076	.00005	.0372	.00389	.00143	.038	.081
%RSD	3.0283	46.826	3.8991	.61905	.48941	390.46	18.873	.30533	.30533

#1	18.250	.00049	.01992	.00877	7.6187	-.00176	.00656	12.395	26.526
#2	19.049	.00097	.01885	.00885	7.5662	.00375	.00859	12.449	26.641

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00061	.48525	.00196	.00021	-.00651	-.02564	-.00104	.00259	.00498
Stddev	.00042	.00133	.00090	.00003	.00048	.00269	.00032	.00145	.00127
%RSD	68.961	.27396	45.781	13.043	7.3588	10.497	30.797	55.901	25.546

#1	.00031	.48619	.00259	.00019	-.00685	-.02754	-.00081	.00156	.00588
#2	.00090	.48431	.00132	.00023	-.00617	-.02374	-.00126	.00361	.00408

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3435.4	62127.	6815.3
Stddev	34.8	384.	49.3
%RSD	1.0141	.61832	.72337

#1	3460.0	61855.	6780.4
#2	3410.8	62398.	6850.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00134	.00595	.00102	.61515	.01631	-.00010	.00003	310.66	-.00027
Stddev	.00080	.00009	.00111	.00131	.00017	.00003	.00160	.97	.00010
%RSD	59.371	1.5072	108.29	.21319	1.0217	33.041	5249.4	.31370	35.681

#1	.00191	.00601	.00181	.61608	.01620	-.00008	.00116	311.35	-.00020
#2	.00078	.00589	.00024	.61422	.01643	-.00012	-.00110	309.97	-.00034

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00680	.00088	.00023	.01877	3.5542	.04342	231.65	4.0544	-.00031
Stddev	.00014	.00004	.00096	.00307	.0595	.00127	.88	.0059	.00006
%RSD	2.1118	5.0199	426.64	16.331	1.6736	2.9311	.38026	.14448	19.016

#1	.00670	.00085	.00090	.02094	3.5962	.04432	231.03	4.0502	-.00035
#2	.00691	.00091	-.00045	.01660	3.5121	.04252	232.28	4.0585	-.00027

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	53.853	.01067	.00061	.00966	F 320.55	.00779	.00290	8.2863	17.733
Stddev	.303	.00014	.00145	.00147	1.90	.00112	.00150	.1152	.246
%RSD	.56331	1.2974	238.65	15.218	.59295	14.393	51.861	1.3900	1.3900

#1	54.068	.01076	.00164	.01070	321.90	.00858	.00396	8.3678	17.907
#2	53.639	.01057	-.00042	.00862	319.21	.00700	.00184	8.2049	17.558

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00029	1.1293	.00098	-.00045	W -.01214	-.03449	-.00056	.00347	.00083
Stddev	.00067	.0008	.00039	.00017	.00236	.00194	.00012	.00024	.00060
%RSD	226.11	.07233	39.855	38.446	19.431	5.6111	21.331	6.9900	72.332

#1	-.00077	1.1287	.00125	-.00033	-.01380	-.03586	-.00047	.00364	.00125
#2	.00018	1.1298	.00070	-.00058	-.01047	-.03312	-.00064	.00330	.00041

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000				
Low Limit					-.01000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3214.7	58480.	6573.2
Stddev	11.5	296.	15.2
%RSD	.35819	.50612	.23149

#1	3206.6	58271.	6583.9
#2	3222.9	58689.	6562.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00110	.02660	.00457	.31179	.07673	-.00015	-.00261	286.00	-.00016
Stddev	.00035	.00037	.00080	.00014	.00128	.00009	.00039	3.55	.00031
%RSD	31.760	1.4047	17.427	.04576	1.6643	63.841	14.732	1.2399	191.19

#1	.00085	.02686	.00401	.31189	.07583	-.00008	-.00289	283.49	.00006
#2	.00134	.02633	.00513	.31169	.07764	-.00021	-.00234	288.51	-.00038

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	.00120	-.00099	.08216	4.3466	.03929	208.45	2.1005	-.00325
Stddev	.00012	.00004	.00025	.00214	.1206	.00098	.98	.0060	.00004
%RSD	74.105	3.7198	25.055	2.6019	2.7754	2.4881	.47223	.28652	1.3188

#1	.00008	.00124	-.00117	.08065	4.2613	.03860	209.14	2.1047	-.00322
#2	.00024	.00117	-.00082	.08367	4.4319	.03998	207.75	2.0962	-.00328

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	64.047	.00265	.00173	.00994	W 184.01	.00666	.00729	10.198	21.825
Stddev	.896	.00085	.00470	.00091	.61	.00333	.00001	.123	.264
%RSD	1.3986	32.124	271.02	9.1865	.33234	50.003	.09776	1.2081	1.2081

#1	63.414	.00326	.00506	.00929	184.44	.00902	.00730	10.111	21.638
#2	64.681	.00205	-.00159	.01058	183.57	.00431	.00729	10.285	22.011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					180.00				
Low Limit					-15000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00024	.80043	.00258	.00040	-.00935	W -.06109	-.00048	.00589	.00437
Stddev	.00064	.00760	.00091	.00045	.00120	.04955	.00008	.00118	.00169
%RSD	261.28	.94906	35.455	112.60	12.866	81.115	17.281	20.093	38.633

#1	-.00021	.79506	.00322	.00008	-.00850	-.02605	-.00054	.00672	.00556
#2	.00069	.80580	.00193	.00072	-.01020	-.09613	-.00042	.00505	.00318

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3076.9	57150.	6416.0
Stddev	27.7	105.	143.2
%RSD	.90134	.18381	2.2315

#1	3096.5	57076.	6517.3
#2	3057.3	57224.	6314.8

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00349	47.675	-.00270	-.00086	.00018	.00015	F .87705	.05705	-.00015	-.00140	.00095	-.00189
Stddev	.00063	.915	.00082	.00008	.00028	.00002	.01158	.01024	.00005	.00015	.00007	.00042
%RSD	18.177	1.9187	30.316	9.5078	156.77	12.647	1.3203	17.956	37.172	10.731	6.9329	22.036

#1	.00304	47.028	-.00328	-.00081	.00038	.00014	.88523	.06429	-.00011	-.00151	.00091	-.00218
#2	.00394	48.321	-.00212	-.00092	-.00002	.00017	.86886	.04981	-.00019	-.00129	.00100	-.00159

Check ?	None	Chk Pass	None	None	None	None	Chk Fail	None	None	None	None	None
Value							1.0000					
Range							-10.490%					

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	45.453	.26764	.00307	-.00331	-.00135	-.00072	236.56	.00106	.00331	.00282	F 4.1841	-.00609
Stddev	.591	.05697	.00058	.00967	.00005	.00003	5.35	.00026	.00233	.00216	.0587	.00137
%RSD	1.2995	21.285	18.952	292.36	3.7630	4.7622	2.2630	24.616	70.471	76.516	1.4029	22.496

#1	45.036	.30792	.00266	-.01015	-.00138	-.00074	232.78	.00088	.00166	.00435	4.2256	-.00706
#2	45.871	.22736	.00348	.00353	-.00131	-.00070	240.35	.00125	.00496	.00129	4.1426	-.00512

Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None	Chk Fail	None
Value											5.0000	
Range											-10.490%	

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00169	-.01696	-.03629	-.00247	.00046	4.8510	-.01557	.00187	9.9944	.00215	.00183	.05955
Stddev	.00034	.00993	.02126	.00073	.00004	.0013	.00001	.00214	.0819	.00008	.00034	.00666
%RSD	19.974	58.581	58.581	29.647	8.1953	.02767	.08125	114.41	.81974	3.5006	18.692	11.192

#1	.00192	-.00993	-.02126	-.00299	.00049	4.8500	-.01556	.00339	9.9365	.00220	.00159	.05483
#2	.00145	-.02398	-.05132	-.00195	.00044	4.8519	-.01558	.00036	10.052	.00210	.00207	.06426

Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3303.8	58678.	6388.0
Stddev	22.5	249.	79.1
%RSD	.68132	.42518	1.2375

#1	3287.9	58855.	6443.9
#2	3319.8	58502.	6332.1

Sample Name: CCV-3305006 Acquired: 6/5/2015 23:44:43 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50712	.46116	F .87317	.45515	.49608	.45327	-.00205	4.8821	.45156	.48353	.46169	.46481
Stddev	.00038	.00011	.00254	.00018	.00276	.00239	.00129	.0715	.00026	.00396	.00338	.00026
%RSD	.07453	.02301	.29109	.03990	.55626	.52760	63.092	1.4654	.05734	.81824	.73156	.05640

#1	.50739	.46109	.87137	.45502	.49413	.45158	-.00114	4.8315	.45138	.48074	.45930	.46499
#2	.50686	.46124	.87496	.45528	.49803	.45496	-.00297	4.9327	.45175	.48633	.46408	.46462

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass				
Value			1.0000									
Range			-10.490%									

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.2768	49.352	.94811	20.133	.50391	F .43390	4.9512	.48595	.90671	.95432	.02053	F .88948
Stddev	.0250	.293	.00368	.014	.00083	.00213	.0193	.00397	.00652	.00750	.00421	.01328
%RSD	1.0964	.59282	.38798	.07001	.16418	.49013	.39015	.81595	.71934	.78539	20.487	1.4932

#1	2.2591	49.145	.94550	20.123	.50450	.43239	4.9376	.48314	.90210	.94902	.02350	.88009
#2	2.2944	49.559	.95071	20.143	.50333	.43540	4.9649	.48875	.91133	.95962	.01755	.89887

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Fail				
Value						.50000						1.0000
Range						-10.490%						-10.490%

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .86956	4.5891	9.8206	F .86967	.46119	-.00147	.49200	F .89031	-.02666	.51358	.50233	.48431
Stddev	.00717	.0615	.1317	.00546	.00146	.00081	.00085	.00741	.01855	.00108	.00025	.00794
%RSD	.82440	1.3407	1.3407	.62781	.31561	55.483	.17374	.83182	69.580	.21048	.04939	1.6405

#1	.86449	4.5456	9.7275	.86581	.46016	-.00204	.49261	.88507	-.03978	.51282	.50250	.47869
#2	.87463	4.6326	9.9137	.87353	.46222	-.00089	.49140	.89554	-.01354	.51435	.50215	.48993

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass
Value	1.0000			1.0000				1.0000				
Range	-10.490%			-10.490%				-10.490%				

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3338.8	59748.	6322.4
Stddev	8.4	162.	1.1
%RSD	.25187	.27098	.01720

#1	3332.9	59634.	6321.7
#2	3344.8	59863.	6323.2

Sample Name: CCB Acquired: 6/5/2015 23:47:13 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00038	-.00043	-.00052	-.00061	-.00052	-.00012	.00168	-.00358	-.00022	-.00027	.00012	-.00179
Stddev	.00021	.00027	.00043	.00012	.00024	.00001	.00400	.00307	.00025	.00039	.00033	.00010
%RSD	55.326	61.541	81.656	19.003	44.953	8.3427	238.92	85.832	114.31	143.92	271.94	5.4912

#1	.00053	-.00025	-.00022	-.00053	-.00036	-.00013	.00451	-.00575	-.00039	-.00055	.00036	-.00186
#2	.00023	-.00062	-.00082	-.00069	-.00069	-.00011	-.00115	-.00141	-.00004	.00000	-.00011	-.00172

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00127	.20895	.00263	-.00168	.00007	.00014	.07337	.00000	-.00111	.00098	.01326	-.00112
Stddev	.00199	.03418	.00075	.00132	.00003	.00005	.01642	.0001	.00262	.00094	.00075	.00171
%RSD	156.22	16.360	28.360	78.594	39.661	36.357	22.383	2637.3	236.59	96.171	5.6899	152.64

#1	-.00268	.23313	.00210	-.00075	.00009	.00011	.08498	.00009	-.00297	.00164	.01273	-.00233
#2	.00013	.18478	.00316	-.00262	.00005	.00018	.06176	-.00010	.00075	.00031	.01380	.00009

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .00727	.00221	.00473	-.00149	.00007	.00544	-.00007	.00241	-.02930	.00002	.00070	.00129
Stddev	.00018	.00189	.00405	.00059	.00004	.00132	.00047	.00156	.00463	.00025	.00025	.00067
%RSD	2.4351	85.580	85.580	39.495	61.619	24.357	644.39	64.569	15.786	1134.4	35.083	52.245

#1	.00714	.00355	.00759	-.00107	.00010	.00638	.00026	.00351	-.02603	-.00016	.00088	.00081
#2	.00739	.00087	.00187	-.00190	.00004	.00450	-.00040	.00131	-.03257	.00020	.00053	.00176

Check ?	Chk Fail	Chk Pass										
High Limit	.00500											
Low Limit	-.00500											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3366.3	61241.	6362.0
Stddev	2.4	186.	7.8
%RSD	.07011	.30379	.12268

#1	3364.6	61109.	6367.5
#2	3367.9	61372.	6356.4

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01066	.09401	.01549	.08805	.00960	.00082	.09377	.19676	.00413	.00969	.00964
Stddev	.00000	.00066	.00558	.00070	.00005	.00000	.00232	.00709	.00002	.00013	.00019
%RSD	.00837	.70251	36.011	.79794	.47977	.27890	2.4772	3.6023	.50157	1.2979	2.0179

#1	.01066	.09355	.01154	.08755	.00963	.00082	.09213	.20178	.00412	.00978	.00951
#2	.01066	.09448	.01943	.08855	.00956	.00082	.09541	.19175	.00415	.00960	.00978

Check ?	Chk Pass										
Value											
Range											

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01270	.09265	3.2394	F .01367	.21341	.01058	.01687	1.0564	.03892	2.5755	.00965
Stddev	.00034	.00165	.0615	.00149	.00260	.00014	.00036	.0105	.00045	.0265	.00114
%RSD	2.6627	1.7804	1.8991	10.876	1.2196	1.3065	2.1631	.99210	1.1507	1.0296	11.815

#1	.01294	.09148	3.2829	.01262	.21525	.01068	.01713	1.0638	.03860	2.5568	.00884
#2	.01247	.09381	3.1959	.01472	.21157	.01048	.01661	1.0490	.03924	2.5943	.01046

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass						
Value				.01000							
Range				30.000%							

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01711	.00757	F .02074	.46406	.99309	.08621	.00953	.01874	.00982	.01579	F -.00882
Stddev	.00110	.00129	.00169	.01960	.04193	.00080	.00007	.00175	.00035	.00019	.02172
%RSD	6.4054	17.032	8.1531	4.2226	4.2226	.92906	.69022	9.3640	3.5786	1.2053	246.20

#1	.01633	.00848	.02193	.45021	.96344	.08677	.00957	.01998	.00957	.01593	.00654
#2	.01788	.00665	.01954	.47792	1.0227	.08564	.00948	.01750	.01007	.01566	-.02418

Check ?	None	Chk Pass	Chk Fail	Chk Pass	Chk Fail						
Value			.01500								.06000
Range			30.000%								-30.000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.01055	.02241	.01668
Stddev	.00009	.00027	.00127
%RSD	.88483	1.2050	7.6023

#1	.01048	.02222	.01758
#2	.01061	.02261	.01578

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3426.0	61902.	6423.4
Stddev	2.9	5.	40.6
%RSD	.08517	.00768	.63217

#1	3428.1	61906.	6452.1
#2	3423.9	61899.	6394.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00159	.00329	-.00294	.14128	.01740	-.00017	-.00189	345.68	-.00021
Stddev	.00145	.00017	.00371	.00073	.00031	.00003	.00467	7.02	.00014
%RSD	91.506	5.2341	126.16	.51687	1.7924	15.527	247.42	2.0321	68.143

#1	.00262	.00317	-.00556	.14180	.01762	-.00015	-.00520	350.65	-.00031
#2	.00056	.00341	-.00032	.14077	.01718	-.00019	.00142	340.72	-.00011

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00066	.00090	.00041	.04563	3.2850	.03679	161.52	4.5032	-.00213
Stddev	.00025	.00017	.00035	.00040	.0465	.00120	.69	.0149	.00058
%RSD	38.761	18.464	86.333	.88481	1.4145	3.2497	.42763	.33020	27.290

#1	.00048	.00078	.00016	.04591	3.3178	.03764	162.01	4.5137	-.00172
#2	.00084	.00101	.00066	.04534	3.2521	.03595	161.03	4.4926	-.00254

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	30.354	.00377	.00538	.01181	F 207.38	.00996	.01198	11.377	24.346
Stddev	.538	.00014	.00255	.00038	2.88	.00034	.00343	.192	.410
%RSD	1.7719	3.7426	47.459	3.2040	1.3879	3.4324	28.650	1.6847	1.6847

#1	30.734	.00367	.00718	.01154	209.42	.01020	.00955	11.512	24.636
#2	29.974	.00387	.00357	.01208	205.35	.00971	.01440	11.241	24.056

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00129	.48978	.00300	-.00023	-.00956	-.03854	-.00147	.01550	.00152
Stddev	.00049	.00343	.00010	.00038	.00157	.00490	.00009	.00030	.00124
%RSD	37.745	.70100	3.3876	168.51	16.440	12.716	6.1379	1.9524	81.676

#1	-.00095	.49220	.00307	-.00050	-.00845	-.04200	-.00141	.01529	.00064
#2	-.00164	.48735	.00293	.00004	-.01067	-.03507	-.00154	.01571	.00240

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3061.4	56928.	6418.5
Stddev	88.9	97.	92.6
%RSD	2.9034	.16958	1.4421

#1	3124.2	56997.	6353.1
#2	2998.5	56860.	6484.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00092	.15879	.00204	.47628	.01381	-.00010	-.00215	294.47	-.00044
Stddev	.00109	.00158	.00483	.00568	.00064	.00005	.00060	2.82	.00001
%RSD	117.92	.99387	237.44	1.1923	4.6399	53.196	27.909	.95930	2.1408

#1	.00015	.15991	-.00138	.48030	.01426	-.00006	-.00172	296.47	-.00043
#2	.00169	.15768	.00545	.47227	.01336	-.00014	-.00257	292.47	-.00044

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01282	.00144	.00021	2.4120	5.6614	.04715	157.78	1.9950	.00135
Stddev	.00014	.00000	.00007	.0311	.1276	.00076	.51	.0030	.00033
%RSD	1.0666	.12969	31.702	1.2889	2.2531	1.6078	.32534	.15210	24.542

#1	.01292	.00144	.00026	2.4340	5.7516	.04661	157.42	1.9929	.00158
#2	.01273	.00145	.00017	2.3901	5.5712	.04769	158.14	1.9972	.00111

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	45.978	.02000	.01922	.01116	F 217.26	.00862	.00879	7.4396	15.921
Stddev	.938	.00035	.00177	.00136	.83	.00154	.00364	.1335	.286
%RSD	2.0396	1.7575	9.2025	12.144	.38250	17.827	41.435	1.7949	1.7949

#1	46.641	.02025	.01797	.01212	217.85	.00970	.00622	7.5341	16.123
#2	45.314	.01975	.02047	.01020	216.67	.00753	.01137	7.3452	15.719

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00167	.79808	.00343	.00561	-.00872	W -.05305	-.00027	.00503	.00038
Stddev	.00073	.00658	.00257	.00076	.00092	.03170	.00084	.00036	.00064
%RSD	43.498	.82442	74.848	13.510	10.527	59.756	304.91	7.1270	166.48

#1	.00219	.80273	.00161	.00614	-.00937	-.07546	-.00087	.00477	.00083
#2	.00116	.79343	.00525	.00507	-.00808	-.03063	.00032	.00528	-.00007

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3109.9	55591.	6414.7
Stddev	44.1	128.	88.1
%RSD	1.4180	.23052	1.3730

#1	3141.0	55681.	6352.4
#2	3078.7	55500.	6476.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00054	.03806	.00385	.10130	.00284	-0.00009	-0.00109	66.933	-0.00005
Stddev	.00020	.00017	.00008	.00028	.00103	.00003	.00123	.837	.00004
%RSD	37.079	.44056	2.1418	.27583	36.228	35.349	112.85	1.2508	69.553

#1	.00040	.03794	.00391	.10150	.00357	-0.00006	-0.00022	67.525	-0.00008
#2	.00068	.03818	.00379	.10110	.00211	-0.00011	-0.00196	66.341	-0.00003

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00316	.00084	-0.00132	.55704	1.3803	.01356	33.804	.44465	-0.00123
Stddev	.00006	.00007	.00041	.00166	.0310	.00023	.092	.00132	.00021
%RSD	1.9349	8.6017	31.188	.29767	2.2441	1.6665	.27070	.29718	17.473

#1	.00320	.00079	-0.00103	.55821	1.3584	.01340	33.740	.44372	-0.00107
#2	.00311	.00089	-0.00161	.55587	1.4022	.01372	33.869	.44559	-0.00138

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	589.592 {57}	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.5238	11.035	.00509	.00516	.00741	44.904	.00220	.01141	1.6446
Stddev	.0996	.474	.00040	.00162	.00206	.311	.00120	.00328	.0191
%RSD	1.0454	4.2960	7.9258	31.303	27.745	.69352	54.653	28.781	1.1604

#1	9.5942	10.700	.00538	.00630	.00887	45.125	.00135	.01373	1.6581
#2	9.4534	11.370	.00481	.00402	.00596	44.684	.00305	.00909	1.6311

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.5195	.00440	.18121	.00183	.00079	-0.00404	-0.02858	-0.00069	.00405
Stddev	.0408	.00076	.00226	.00203	.00002	.00310	.03124	.00043	.00083
%RSD	1.1604	17.185	1.2463	110.86	2.7842	76.843	109.31	62.732	20.520

#1	3.5484	.00386	.18281	.00040	.00078	-0.00184	-0.00649	-0.00099	.00347
#2	3.4906	.00493	.17961	.00327	.00081	-0.00623	-0.05067	-0.00038	.00464

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 {99}
Units	ppm
Avg	.00393
Stddev	.00083
%RSD	21.002

#1	.00335
#2	.00451

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69287-A-6-Dsd@5 Acquired: 6/5/2015 23:57:38 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 280183 6010b

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	3191.3	56922.	6261.6
Stddev	9.6	417.	61.6
%RSD	.30061	.73243	.98321
#1	3198.1	57216.	6218.1
#2	3184.5	56627.	6305.1

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05340	2.0692	W 2.9259	.94474	1.4364	2.0229	.04460	F 1.8269	349.76
Stddev	.00007	.0175	.0117	.00945	.0103	.0009	.00016	.0063	1.45
%RSD	.13241	.84490	.40123	1.0007	.71427	.04537	.34962	.34642	.41485

#1	.05335	2.0568	2.9176	.93805	1.4291	2.0235	.04471	1.8224	350.78
#2	.05345	2.0815	2.9342	.95142	1.4436	2.0222	.04449	1.8313	348.73

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00					.10000	
Low Limit			3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09452	.48069	W .16460	.23701	3.3325	57.046	1.0241	204.06	2.4239
Stddev	.00038	.00385	.00117	.00128	.0007	.034	.0019	.34	.0028
%RSD	.40075	.80110	.71171	.54192	.02183	.05877	.18463	.16478	.11734

#1	.09425	.47797	.16543	.23792	3.3320	57.022	1.0254	204.29	2.4259
#2	.09479	.48341	.16377	.23610	3.3330	57.070	1.0228	203.82	2.4219

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.10000						
Low Limit			-.01000						

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.92352	97.086	.48619	W 10.105	.47921	F 219.68	.48066	1.8651	16.952
Stddev	.00692	.680	.00484	.073	.00350	.82	.00426	.0061	.179
%RSD	.74899	.70065	.99468	.72182	.72985	.37253	.88697	.32890	1.0541

#1	.91863	97.567	.48277	10.053	.47674	219.10	.47765	1.8608	17.079
#2	.92842	96.605	.48961	10.156	.48168	220.26	.48368	1.8695	16.826

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				2.0000		200.00			
Low Limit				-1.0000		-.20000			

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	36.278	1.7450	1.7578	.99290	.99503	1.6480	2.0419	.51973	.48979
Stddev	.382	.0122	.0037	.00101	.00138	.0057	.0188	.00020	.00205
%RSD	1.0541	.69681	.21344	.10213	.13877	.34530	.92055	.03893	.41923

#1	36.548	1.7364	1.7605	.99218	.99601	1.6439	2.0551	.51988	.49124
#2	36.007	1.7536	1.7552	.99361	.99406	1.6520	2.0286	.51959	.48834

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.49404
Stddev	.00352
%RSD	.71325

#1	.49154
#2	.49653

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69287-A-6-E MS Acquired: 6/6/2015 0:00:17 Type: Unk

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment: 280183 6010b

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2932.3	54989.	6015.9
Stddev	46.7	12.	79.2
%RSD	1.5924	.02242	1.3172
#1	2965.3	54980.	5959.8
#2	2899.3	54997.	6071.9

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05579	2.1318	W 3.0407	.96968	1.4781	2.0783	.04589	F 1.8833	348.91
Stddev	.00047	.0104	.0361	.00117	.0020	.0274	.00040	.0036	14.05
%RSD	.84299	.48700	1.1869	.12073	.13801	1.3181	.86449	.18935	4.0272

#1	.05612	2.1245	3.0662	.96885	1.4766	2.0977	.04617	1.8858	358.85
#2	.05545	2.1392	3.0152	.97051	1.4795	2.0589	.04561	1.8808	338.98

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00					.10000	
Low Limit			3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09794	.49910	W .17059	.24534	3.3765	58.601	1.0530	210.20	2.5041
Stddev	.00010	.00018	.00035	.00134	.0463	.710	.0111	.18	.0032
%RSD	.10109	.03588	.20676	.54753	1.3701	1.2124	1.0542	.08589	.12902

#1	.09787	.49897	.17084	.24439	3.4092	59.103	1.0609	210.08	2.5018
#2	.09801	.49923	.17034	.24629	3.3437	58.098	1.0452	210.33	2.5063

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.10000						
Low Limit			-.01000						

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.95987	99.322	.50517	W 10.439	.49750	F 223.04	.50297	1.9483	17.320
Stddev	.00186	1.432	.00027	.007	.00339	.55	.00281	.0043	.225
%RSD	.19413	1.4413	.05396	.06772	.68145	.24581	.55905	.22023	1.2963

#1	.95855	100.33	.50536	10.444	.49510	223.43	.50495	1.9453	17.479
#2	.96119	98.309	.50498	10.434	.49990	222.65	.50098	1.9514	17.162

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				2.0000		200.00			
Low Limit				-1.0000		-.20000			

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	37.065	1.8292	1.7893	1.0398	1.0425	1.7252	2.1379	.54631	.51796
Stddev	.480	.0088	.0187	.0008	.0022	.0009	.0052	.00018	.00107
%RSD	1.2963	.47878	1.0458	.07272	.21048	.05447	.24342	.03292	.20604

#1	37.405	1.8354	1.8025	1.0393	1.0409	1.7259	2.1416	.54643	.51721
#2	36.726	1.8230	1.7760	1.0403	1.0440	1.7246	2.1343	.54618	.51872

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.50717
Stddev	.00758
%RSD	1.4952

#1	.51254
#2	.50181

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-69287-A-6-F MSD Acquired: 6/6/2015 0:02:46 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 280183 6010b

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2919.9	53158.	5972.9
Stddev	17.9	147.	161.3
%RSD	.61313	.27561	2.7014
#1	2932.6	53262.	5858.8
#2	2907.3	53055.	6087.0

Sample Name: CCVH-3304613 Acquired: 6/6/2015 0:05:16 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00350	49.367	.00544	.00277	.00058	.00006	W .90681	.05877	-.00015	-.00104	.00097
Stddev	.00019	.849	.00051	.00113	.00001	.00006	.00135	.00831	.00029	.00011	.00012
%RSD	5.4380	1.7203	9.3613	40.721	1.5510	91.497	.14880	14.142	188.77	10.582	12.042

#1	.00363	49.968	.00580	.00357	.00057	.00010	.90776	.06465	-.00036	-.00096	.00106
#2	.00336	48.767	.00508	.00197	.00059	.00002	.90586	.05290	.00005	-.00112	.00089

Check ?	None	Chk Pass	None	None	None	None	Chk Warn	None	None	None	None
Value							1.0000				
Range							-5.0000%				

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00217	47.712	.33262	.00371	-.00192	-.00140	.00003	244.40	.00078	.00755	.00267
Stddev	.00094	.940	.00005	.00147	.00779	.00005	.00003	3.88	.00006	.00017	.00199
%RSD	43.204	1.9703	.01385	39.569	406.09	3.8039	122.97	1.5870	8.0747	2.2093	74.563

#1	-.00151	48.377	.33259	.00475	-.00743	-.00144	.00005	247.15	.00073	.00744	.00126
#2	-.00283	47.047	.33265	.00267	.00359	-.00136	.00000	241.66	.00082	.00767	.00407

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 4.3389	-.00469	.00529	-.01870	-.04002	-.00106	.00063	5.0812	-.01578	.00443	W 10.513
Stddev	.0040	.00095	.00010	.00878	.01880	.00091	.00009	.0096	.00027	.00041	.086
%RSD	.09201	20.319	1.8349	46.960	46.960	86.513	14.657	.18874	1.7309	9.2369	.82164

#1	4.3361	-.00536	.00536	-.02491	-.05332	-.00041	.00056	5.0744	-.01559	.00472	10.452
#2	4.3417	-.00402	.00522	-.01249	-.02673	-.00170	.00069	5.0880	-.01597	.00414	10.574

Check ?	Chk Fail	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value	5.0000										10.000
Range	-10.490%										5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00320	.00049	.05850
Stddev	.00020	.00091	.00701
%RSD	6.2435	188.20	11.988

#1	.00334	-.00016	.06346
#2	.00306	.00113	.05355

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3126.0	54417.	5851.6
Stddev	28.7	55.	146.9
%RSD	.91674	.10182	2.5099

#1	3105.8	54378.	5747.8
#2	3146.3	54457.	5955.5

Sample Name: CCV-3305006 Acquired: 6/6/2015 0:07:51 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51968	.47764	W .89571	.46885	.50151	.45755	.00158	4.9647	.46725	.49700	.45873
Stddev	.00318	.00129	.00352	.00035	.00507	.00416	.00273	.0652	.00259	.00265	.00120
%RSD	.61110	.26984	.39282	.07393	1.0105	.91024	172.82	1.3126	.55513	.53229	.26161

#1	.52193	.47855	.89322	.46860	.50509	.46049	-.00035	5.0108	.46909	.49513	.45958
#2	.51743	.47672	.89820	.46909	.49792	.45460	.00350	4.9186	.46542	.49887	.45788

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			1.0000								
Range			-10.000%								

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47452	2.3133	49.751	.95868	20.714	.51979	F .44502	4.9924	.49758	.93562	.97859
Stddev	.00037	.0354	.640	.00906	.044	.00236	.00318	.0513	.00279	.00597	.00729
%RSD	.07728	1.5293	1.2856	.94557	.21278	.45372	.71434	1.0281	.56122	.63773	.74539

#1	.47426	2.3383	50.203	.96509	20.746	.52146	.44277	5.0287	.49560	.93140	.97343
#2	.47478	2.2883	49.299	.95227	20.683	.51812	.44727	4.9561	.49955	.93984	.98375

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass					
Value							.50000				
Range							-10.490%				

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02448	.90912	F .88503	4.6881	10.033	F .89236	.46713	.00079	.51065	.90680	-.01871
Stddev	.00035	.00850	.00398	.0104	.022	.00695	.00415	.00058	.00353	.00344	.00172
%RSD	1.4454	.93452	.44938	.22130	.22130	.77857	.88897	73.175	.69081	.37900	9.1840

#1	.02473	.90311	.88784	4.6808	10.017	.88745	.47007	.00119	.50816	.90437	-.01750
#2	.02423	.91513	.88221	4.6955	10.048	.89728	.46420	.00038	.51315	.90923	-.01993

Check ?	None	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass	Chk Pass	None
Value			1.0000			1.0000					
Range			-10.490%			-10.490%					

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.53265	.51536	.49617
Stddev	.00192	.00145	.00003
%RSD	.36013	.28054	.00696

#1	.53401	.51638	.49615
#2	.53130	.51434	.49620

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3232.8	58500.	6260.2
Stddev	35.4	405.	99.5
%RSD	1.0960	.69283	1.5895

#1	3257.9	58214.	6189.9
#2	3207.7	58787.	6330.6

Sample Name: CCB Acquired: 6/6/2015 0:10:21 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00014	-.00014	.00061	.00124	-.00016	-.00026	-.00160	-.00020	-.00034	.00010	.00046	-.00115	-.00084
Stddev	.00003	.00007	.00211	.00062	.00006	.00013	.00168	.00714	.00019	.00028	.00006	.00014	.00449
%RSD	21.781	46.200	345.64	50.535	38.154	51.164	104.80	3579.6	57.814	288.05	13.539	12.404	531.75
#1	.00016	-.00010	.00211	.00168	-.00012	-.00035	-.00278	.00485	-.00020	-.00010	.00051	-.00105	-.00402
#2	.00012	-.00019	-.00088	.00079	-.00020	-.00017	-.00041	-.00525	-.00047	.00029	.00042	-.00126	.00233

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.26072	.00304	.00464	.00011	.00011	.07382	-.00012	-.00116	.00168	.01825	-.00032	.00494	.01188
Stddev	.03007	.00186	.00120	.00000	.00026	.00177	.00001	.00097	.00077	.00403	.00144	.00065	.01001
%RSD	11.535	61.178	25.862	2.4926	237.43	2.4004	8.2820	83.282	45.961	22.070	450.97	13.182	84.270
#1	.28199	.00173	.00548	.00011	-.00007	.07257	-.00011	-.00185	.00222	.01540	-.00133	.00540	.01896
#2	.23946	.00436	.00379	.00011	-.00029	.07507	-.00013	-.00048	.00113	.02110	.00070	.00448	.00480

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02542	-.00171	.00022	.00527	-.00021	.00139	-.01933	.00053	.00049	.00206
Stddev	.02142	.00085	.00015	.00033	.00054	.00246	.03089	.00009	.00085	.00038
%RSD	84.270	49.896	68.905	6.3506	251.10	177.37	159.78	16.961	174.99	18.364
#1	.04057	-.00111	.00011	.00503	-.00017	-.00035	.00251	.00047	.00109	.00233
#2	.01027	-.00231	.00032	.00551	-.00060	.00313	-.04118	.00060	-.00012	.00179

Check ? High Limit Low Limit
 Chk Pass Chk Pass

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3243.5	58925.	6087.5
Stddev	2.4	480.	75.7
%RSD	.07438	.81404	1.2437
#1	3245.2	58586.	6141.1
#2	3241.8	59264.	6034.0

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01095	.09892	.01879	.09437	.01003	.00072	.09873	.20116	.00461	.01032	.00972	.01291
Stddev	.00003	.00021	.00099	.00015	.00015	.00004	.00071	.00678	.00019	.00014	.00036	.00027
%RSD	.26669	.21419	5.2851	.15501	1.5104	5.7418	.71823	3.3724	4.0501	1.3779	3.7326	2.0632

#1	.01093	.09907	.01949	.09426	.00992	.00075	.09923	.19636	.00474	.01022	.00998	.01272
#2	.01097	.09877	.01809	.09447	.01014	.00069	.09823	.20595	.00448	.01042	.00946	.01309

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09009	3.2223	F .01404	.22224	.01125	.01749	1.0818	.04174	2.7256	.01055	.01619	.00931
Stddev	.00314	.0325	.00090	.00037	.00004	.00021	.0041	.00071	.0056	.00141	.00093	.00056
%RSD	3.4815	1.0084	6.4035	.16772	.34416	1.2200	.37713	1.7088	.20705	13.371	5.7729	5.9866

#1	.08787	3.1993	.01340	.22250	.01122	.01764	1.0789	.04123	2.7296	.00955	.01685	.00891
#2	.09230	3.2453	.01467	.22197	.01128	.01734	1.0847	.04224	2.7216	.01155	.01552	.00970

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01922	.49462	1.0585	.09178	.00957	.01686	.01051	.01598	F .09019	.01103	.02371	.01659
Stddev	.00047	.00464	.0099	.00072	.00001	.00024	.00032	.00102	.00959	.00041	.00042	.00143
%RSD	2.4702	.93881	.93881	.78360	.13305	1.3988	3.0857	6.3961	10.632	3.7588	1.7831	8.6411

#1	.01889	.49790	1.0655	.09127	.00956	.01703	.01028	.01526	.08341	.01132	.02341	.01558
#2	.01956	.49134	1.0515	.09229	.00958	.01669	.01074	.01670	.09697	.01073	.02401	.01761

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass							
Value									.06000			
Range									30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3219.1	58327.	6072.8
Stddev	11.5	305.	4.9
%RSD	.35867	.52334	.08117

#1	3211.0	58543.	6069.3
#2	3227.3	58111.	6076.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00088	.00134	.00034	-.00050	-.00018	-.00016	.00182	-.00752	-.00012
Stddev	.00096	.00014	.00382	.00011	.00028	.00002	.00383	.00608	.00002
%RSD	109.08	10.153	1136.3	21.496	153.56	13.038	210.76	80.775	17.394

#1	.00020	.00125	-.00236	-.00058	-.00039	-.00014	-.00089	-.01182	-.00014
#2	.00156	.00144	.00303	-.00043	.00002	-.00017	.00453	-.00323	-.00011

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	.00040	-.00194	.00868	.21114	.00205	-.00077	.00011	.00007
Stddev	.00009	.00003	.00058	.00047	.00377	.00117	.00394	.00004	.00030
%RSD	62.147	6.4338	29.983	5.4278	1.7860	57.023	514.54	31.098	426.38

#1	-.00020	.00038	-.00153	.00902	.20847	.00288	.00202	.00014	.00028
#2	-.00008	.00042	-.00235	.00835	.21380	.00122	-.00355	.00009	-.00014

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05131	-.00049	.00074	.00172	.01403	.00082	W .00815	-.00622	-.01330
Stddev	.01783	.00023	.00055	.00254	.00014	.00230	.00155	.02664	.05701
%RSD	34.747	48.247	73.630	147.71	.98588	281.41	18.957	428.65	428.65

#1	.06392	-.00065	.00036	.00352	.01393	.00244	.00924	-.02505	-.05361
#2	.03870	-.00032	.00113	-.00008	.01413	-.00081	.00706	.01262	.02701

Check ?	Chk Pass	Chk Warn	Chk Pass	None					
High Limit							.00750		
Low Limit							-.00750		

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00118	.00015	W .00510	-.00016	.00128	-.03342	.00001	.00055	-.00112
Stddev	.00039	.00003	.00119	.00022	.00031	.02393	.00065	.00052	.00063
%RSD	33.553	19.779	23.354	135.41	24.504	71.614	8179.9	94.942	56.128

#1	-.00090	.00017	.00426	-.00032	.00106	-.01650	-.00045	.00091	-.00068
#2	-.00145	.00013	.00594	-.00001	.00150	-.05034	.00046	.00018	-.00157

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.00500						
Low Limit			-.00500						

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3214.6	58067.	6007.5
Stddev	18.2	8.	49.6
%RSD	.56606	.01297	.82588

#1	3201.7	58061.	5972.4
#2	3227.4	58072.	6042.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05275	1.8419	.90393	.94557	2.0727	.04705	1.8200	49.943	.09323
Stddev	.00021	.0168	.00945	.01357	.0188	.00000	.0214	.376	.00079
%RSD	.39409	.91299	1.0452	1.4352	.90691	.00889	1.1744	.75317	.85204

#1	.05260	1.8301	.89725	.93597	2.0594	.04706	1.8049	49.677	.09267
#2	.05289	1.8538	.91061	.95517	2.0860	.04705	1.8351	50.209	.09379

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49173	F .17909	.24107	.96321	51.989	.99058	51.754	.52493	.94578
Stddev	.00555	.00113	.00049	.00051	.375	.00647	.018	.00042	.00910
%RSD	1.1285	.62868	.20122	.05315	.72156	.65295	.03472	.08071	.96170

#1	.48781	.17830	.24072	.96284	51.724	.98601	51.741	.52523	.93935
#2	.49566	.17989	.24141	.96357	52.255	.99516	51.766	.52463	.95222

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	53.315	.49220	9.6286	.49267	1.7510	.46934	1.7900	9.7659	20.899
Stddev	.033	.00549	.1305	.00677	.0241	.00917	.0222	.0002	.000
%RSD	.06237	1.1152	1.3554	1.3741	1.3771	1.9531	1.2432	.00192	.00192

#1	53.339	.48832	9.5363	.48788	1.7340	.46285	1.7742	9.7660	20.899
#2	53.292	.49608	9.7209	.49745	1.7681	.47582	1.8057	9.7658	20.899

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8161	.95847	1.0260	1.0297	1.7816	2.0750	.53717	.51545	.52264
Stddev	.0282	.00534	.0073	.0021	.0357	.0106	.00095	.00083	.00378
%RSD	1.5540	.55689	.71200	.20462	2.0009	.50979	.17642	.16186	.72275

#1	1.7961	.95469	1.0312	1.0312	1.7564	2.0825	.53650	.51604	.51997
#2	1.8361	.96224	1.0208	1.0282	1.8068	2.0675	.53784	.51486	.52532

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3102.8	56076.	5985.0
Stddev	23.4	95.	28.1
%RSD	.75360	.17014	.46997

#1	3119.3	56008.	6004.9
#2	3086.2	56143.	5965.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00103	.00396	-.00197	.41677	.15253	-.00012	-.00185	13.459	-.00007
Stddev	.00027	.00062	.00111	.00072	.00107	.00015	.00302	.098	.00035
%RSD	26.251	15.603	56.450	.17247	.70000	127.68	162.82	.72716	514.65

#1	.00084	.00353	-.00119	.41626	.15328	-.00001	.00028	13.529	.00018
#2	.00122	.00440	-.00276	.41727	.15177	-.00023	-.00398	13.390	-.00032

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00124	.00078	-.00059	.02485	45.237	.23033	12.298	.06215	.00238
Stddev	.00019	.00033	.00073	.00176	.070	.00291	.098	.00003	.00016
%RSD	14.964	41.825	123.73	7.0975	.15366	1.2641	.79505	.04835	6.5599

#1	-.00137	.00101	-.00110	.02361	45.286	.22827	12.367	.06213	.00249
#2	-.00111	.00055	-.00007	.02610	45.188	.23239	12.228	.06217	.00227

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	421.45	-.00044	.31295	.00133	.42996	-.00153	.00967	20.173	43.170
Stddev	2.41	.00041	.00251	.00092	.00313	.00003	.00321	.034	.072
%RSD	.57243	93.893	.80265	69.636	.72901	1.6818	33.180	.16743	.16743

#1	423.16	-.00015	.31473	.00067	.43218	-.00151	.00740	20.197	43.222
#2	419.75	-.00073	.31118	.00198	.42775	-.00155	.01193	20.149	43.119

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	.09326	-.00022	.00153	-.00031	-.03711	-.00021	.00130	-.00046
Stddev	.00030	.00016	.00127	.00043	.00064	.03969	.00024	.00018	.00271
%RSD	834.06	.17011	570.97	27.864	206.78	106.95	115.43	13.916	586.51

#1	.00018	.09315	-.00112	.00123	-.00077	-.06517	-.00004	.00143	-.00238
#2	-.00025	.09338	.00068	.00183	.00014	-.00904	-.00038	.00117	.00145

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3077.9	52483.	5897.5
Stddev	22.2	596.	57.2
%RSD	.72069	1.1360	.97053

#1	3062.2	52061.	5857.1
#2	3093.6	52904.	5938.0

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00066	.27384	.00114	.45285	.19349	-.00012	-.00375	8.9140	-.00031
Stddev	.00091	.00531	.00107	.00620	.00461	.00004	.00168	.1557	.00007
%RSD	138.00	1.9373	94.559	1.3683	2.3840	36.378	44.808	1.7464	22.003

#1	.00002	.27009	.00190	.44847	.19675	-.00015	-.00494	9.0241	-.00026
#2	.00130	.27759	.00038	.45723	.19023	-.00009	-.00256	8.8039	-.00036

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00146	.00218	.00075	.44308	44.158	.18036	9.0933	.09409	.00048
Stddev	.00015	.00040	.00075	.00404	.901	.00043	.0202	.00091	.00032
%RSD	10.462	18.197	100.12	.91107	2.0405	.23653	.22228	.97013	67.891

#1	-.00156	.00190	.00128	.44594	44.796	.18006	9.1076	.09474	.00025
#2	-.00135	.00246	.00022	.44023	43.521	.18066	9.0790	.09345	.00071

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	441.11	.00041	1.3862	-.00055	1.8701	-.00077	.00791	20.899	44.724
Stddev	8.52	.00096	.0300	.00032	.0382	.00263	.00008	.142	.303
%RSD	1.9316	233.81	2.1640	58.524	2.0437	340.96	1.0123	.67813	.67813

#1	447.14	-.00027	1.3650	-.00078	1.8431	.00109	.00797	20.999	44.939
#2	435.09	.00109	1.4074	-.00032	1.8972	-.00263	.00785	20.799	44.510

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00070	.06896	.00697	.02409	.00091	-.03299	.00330	.00306	.00382
Stddev	.00116	.00070	.00041	.00074	.00068	.04617	.00008	.00010	.00007
%RSD	166.36	1.0220	5.8937	3.0779	75.183	139.94	2.4325	3.1669	1.8260

#1	-.00152	.06945	.00668	.02462	.00139	-.00035	.00336	.00299	.00387
#2	.00012	.06846	.00726	.02357	.00043	-.06564	.00324	.00313	.00377

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3028.2	53733.	6002.6
Stddev	24.0	573.	162.9
%RSD	.79302	1.0658	2.7139

#1	3045.2	53328.	5887.4
#2	3011.2	54138.	6117.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00040	.00624	-.00104	.50293	1.2441	-.00008	-.00476	138.12	.00011
Stddev	.00095	.00054	.00391	.00131	.0147	.00000	.00266	1.24	.00007
%RSD	240.61	8.6232	376.45	.26097	1.1858	5.5588	56.003	.89465	62.322

#1	.00107	.00663	.00172	.50386	1.2545	-.00008	-.00664	139.00	.00016
#2	-.00028	.00586	-.00380	.50200	1.2337	-.00008	-.00287	137.25	.00006

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00243	.00100	.00090	.01486	W 207.89	.77235	133.08	.64539	.00137
Stddev	.00040	.00021	.00013	.00132	1.54	.00557	1.20	.00464	.00003
%RSD	16.349	21.453	13.938	8.9103	.74261	.72142	.90418	.71879	2.4845

#1	-.00272	.00115	.00099	.01393	208.99	.77629	133.93	.64867	.00134
#2	-.00215	.00085	.00081	.01580	206.80	.76841	132.23	.64211	.00139

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-.50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2951.6	.00165	.38339	.01023	126.65	.00375	.01318	14.107	30.189
Stddev	24.1	.00030	.00188	.00050	.05	.00037	.00285	.036	.077
%RSD	.81815	18.477	.48984	4.9124	.04109	9.9071	21.641	.25521	.25521

#1	2968.6	.00186	.38472	.00988	126.68	.00348	.01519	14.081	30.134
#2	2934.5	.00143	.38206	.01059	126.61	.00401	.01116	14.132	30.243

Check ?	Chk Warn	Chk Pass							
High Limit	500.00								
Low Limit	11.000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00124	1.1290	-.00036	-.00035	-.00631	-.04912	-.00282	.00147	.00036
Stddev	.00147	.0081	.00088	.00018	.00101	.00449	.00034	.00044	.00132
%RSD	118.73	.71537	242.18	51.607	16.072	9.1387	12.178	29.973	366.75

#1	-.00228	1.1347	.00026	-.00022	-.00559	-.05229	-.00258	.00179	.00129
#2	-.00020	1.1233	-.00099	-.00048	-.00702	-.04595	-.00307	.00116	-.00057

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2783.6	45577.	5762.8
Stddev	68.1	468.	42.1
%RSD	2.4449	1.0264	.72981

#1	2735.5	45246.	5733.0
#2	2831.7	45908.	5792.5

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00007	1.0904	-0.00002	.36456	.13460	.00010	-0.00413	9.8971	.00010
Stddev	.00004	.0010	.00272	.00223	.00030	.00004	.00086	.0413	.00005
%RSD	58.422	.09560	16400.	.61186	.22329	41.471	20.916	.41760	52.193

#1	.00010	1.0912	.00191	.36298	.13482	.00013	-.00352	9.9263	.00006
#2	.00004	1.0897	-.00194	.36613	.13439	.00007	-.00474	9.8678	.00014

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00052	.00419	.00111	1.5928	33.466	.16080	7.7151	.11587	.00035
Stddev	.00033	.00015	.00002	.0114	.114	.00278	.0178	.00134	.00004
%RSD	64.098	3.5177	1.9829	.71818	.34205	1.7271	.23087	1.1558	10.086

#1	-0.00076	.00409	.00109	1.5847	33.546	.15884	7.7277	.11682	.00032
#2	-0.00029	.00429	.00112	1.6009	33.385	.16277	7.7025	.11493	.00037

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	223.19	.00192	.87910	.00224	1.9144	-0.00144	.00821	23.099	49.431
Stddev	1.36	.00056	.00603	.00189	.0145	.00079	.00021	.223	.477
%RSD	.60735	29.037	.68572	84.386	.75869	54.851	2.5175	.96460	.96460

#1	224.15	.00153	.87484	.00358	1.9041	-.00200	.00836	22.941	49.094
#2	222.23	.00232	.88336	.00090	1.9247	-.00088	.00806	23.256	49.768

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00034	.06980	.00737	.05036	-0.00025	-0.02971	.00613	.00820	.00500
Stddev	.00090	.00078	.00058	.00053	.00024	.01596	.00022	.00108	.00406
%RSD	262.03	1.1224	7.8524	1.0499	96.396	53.729	3.5521	13.209	81.110

#1	-0.00029	.06925	.00696	.05073	-0.00042	-.01842	.00629	.00744	.00787
#2	.00098	.07036	.00778	.04999	-0.00008	-.04099	.00598	.00897	.00213

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3196.1	56949.	6383.5
Stddev	1.2	164.	34.9
%RSD	.03897	.28771	.54725

#1	3195.2	56833.	6358.8
#2	3196.9	57064.	6408.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00064	.22968	-.00151	.07386	.02764	-.00017	-.00027	2.0961	-.00020
Stddev	.00001	.00010	.00345	.00104	.00014	.00001	.00182	.0274	.00002
%RSD	1.0638	.04180	228.13	1.4140	.50669	7.7470	674.49	1.3096	10.548

#1	.00064	.22961	.00093	.07312	.02774	-.00016	-.00156	2.0767	-.00018
#2	.00064	.22974	-.00395	.07460	.02754	-.00018	.00102	2.1155	-.00021

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00014	.00097	-.00071	.34125	7.2461	.03607	1.5930	.02348	-.00003
Stddev	.00017	.00017	.00026	.00084	.0291	.00001	.0082	.00028	.00007
%RSD	125.84	17.368	36.686	.24746	.40206	.01520	.51677	1.1934	208.21

#1	.00026	.00085	-.00052	.34185	7.2255	.03607	1.5988	.02368	-.00008
#2	.00002	.00109	-.00089	.34065	7.2667	.03607	1.5872	.02328	.00002

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	47.450	.00062	.17558	.00336	.39086	.00015	.00659	4.6671	9.9876
Stddev	.532	.00039	.00458	.00067	.00149	.00150	.00105	.0192	.0410
%RSD	1.1222	62.280	2.6104	20.008	.37999	1018.1	15.946	.41082	.41082

#1	47.074	.00090	.17233	.00383	.39191	.00121	.00585	4.6536	9.9586
#2	47.827	.00035	.17882	.00288	.38981	-.00091	.00734	4.6807	10.017

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00209	.01441	.00482	.00940	.00164	-.04173	.00106	.00457	.00398
Stddev	.00051	.00000	.00158	.00015	.00225	.02690	.00012	.00077	.00094
%RSD	24.471	.02446	32.788	1.6374	137.00	64.460	11.130	16.793	23.715

#1	.00173	.01441	.00594	.00929	.00005	-.06076	.00097	.00511	.00465
#2	.00245	.01441	.00371	.00951	.00323	-.02271	.00114	.00403	.00331

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3365.9	59255.	6310.3
Stddev	20.1	151.	2.8
%RSD	.59727	.25535	.04497

#1	3351.7	59362.	6308.3
#2	3380.1	59148.	6312.3

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05031	4.1931	.87771	1.2501	2.0730	.04413	F 1.7429	55.789	.09010
Stddev	.00089	.0462	.00597	.0196	.0043	.00022	.0242	.013	.00138
%RSD	1.7727	1.1009	.68024	1.5712	.20622	.49715	1.3908	.02398	1.5350

#1	.04967	4.1604	.87349	1.2363	2.0760	.04428	1.7257	55.799	.08912
#2	.05094	4.2257	.88193	1.2640	2.0700	.04397	1.7600	55.780	.09107

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46210	W .17581	.23040	2.5136	80.670	1.0773	55.433	.59836	.89059
Stddev	.00821	.00031	.00035	.0085	.085	.0004	.173	.00226	.01649
%RSD	1.7762	.17433	.15263	.33900	.10482	.03380	.31134	.37832	1.8517

#1	.45629	.17560	.23065	2.5196	80.729	1.0776	55.311	.59676	.87893
#2	.46790	.17603	.23015	2.5076	80.610	1.0771	55.555	.59996	.90225

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	261.11	.46232	W 10.104	.45802	3.5131	.44680	1.7295	32.030	68.544
Stddev	.85	.00899	.195	.00671	.0617	.01154	.0363	.032	.068
%RSD	.32432	1.9446	1.9306	1.4650	1.7568	2.5831	2.0981	.09970	.09970

#1	261.70	.45596	9.9663	.45328	3.4695	.43864	1.7039	32.053	68.593
#2	260.51	.46867	10.242	.46277	3.5568	.45496	1.7552	32.007	68.496

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.6826	.96594	.97851	1.0292	1.6023	1.9555	.51518	.49134	.48661
Stddev	.0321	.00254	.00189	.0024	.0230	.0131	.00124	.00001	.00361
%RSD	1.9048	.26326	.19339	.23314	1.4379	.67164	.24074	.00116	.74149

#1	1.6599	.96774	.97717	1.0275	1.5860	1.9462	.51430	.49135	.48916
#2	1.7053	.96414	.97985	1.0309	1.6186	1.9648	.51606	.49134	.48406

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3170.0	57092.	6451.5
Stddev	39.7	572.	53.2
%RSD	1.2518	1.0016	.82439

#1	3198.1	57496.	6489.1
#2	3142.0	56688.	6413.9

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04976	4.0516	.85075	1.2149	2.1248	.04524	F 1.6890	57.331	.08761
Stddev	.00098	.3607	.00491	.0067	.1726	.00368	.0113	4.579	.00030
%RSD	1.9773	8.9021	.57689	.55262	8.1230	8.1426	.66814	7.9876	.34047

#1	.05046	3.7966	.84728	1.2101	2.0028	.04264	1.6810	54.093	.08740
#2	.04906	4.3066	.85422	1.2196	2.2468	.04785	1.6969	60.569	.08782

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.45077	W .17137	.22500	2.4272	82.703	1.1062	54.551	.58413	.86451
Stddev	.00310	.00126	.00272	.2016	6.561	.0921	.619	.00597	.00501
%RSD	.68850	.73800	1.2103	8.3039	7.9329	8.3259	1.1346	1.0220	.57963

#1	.44857	.17047	.22693	2.2847	78.063	1.0411	54.988	.58835	.86097
#2	.45296	.17226	.22308	2.5698	87.342	1.1713	54.113	.57991	.86805

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	266.29	.44933	W 9.8052	.44573	3.2707	.43001	1.6774	32.748	70.081
Stddev	22.55	.00351	.0501	.00148	.0094	.00016	.0043	2.693	5.763
%RSD	8.4696	.78148	.51063	.33195	.28583	.03624	.25527	8.2233	8.2233

#1	250.34	.44685	9.7698	.44468	3.2641	.42990	1.6804	30.844	66.006
#2	282.24	.45181	9.8406	.44677	3.2773	.43012	1.6743	34.652	74.156

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.6341	.98767	.95354	1.0036	1.5526	1.8797	.50347	.48568	.49996
Stddev	.0110	.08028	.00652	.0106	.0007	.0297	.00584	.00609	.05022
%RSD	.67488	8.1285	.68376	1.0562	.04494	1.5798	1.1603	1.2535	10.045

#1	1.6263	.93090	.95815	1.0111	1.5521	1.9007	.50760	.48998	.46445
#2	1.6419	1.0444	.94893	.99608	1.5531	1.8587	.49934	.48137	.53547

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3185.3	56854.	6145.9
Stddev	3.6	322.	327.5
%RSD	.11358	.56674	5.3289

#1	3182.8	56627.	6377.5
#2	3187.9	57082.	5914.3

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00367	47.114	-.00138	.00246	-.00004	.00004	F .89445	.05800	-.00015	-.00092	.00112	-.00222
Stddev	.00012	.061	.00228	.00057	.00001	.00012	.00303	.00450	.00017	.00025	.00004	.00007
%RSD	3.2572	.12915	165.33	23.222	16.285	322.68	.33925	7.7510	116.08	27.611	3.7386	3.2215

#1	.00359	47.157	-.00299	.00286	-.00003	.00012	.89659	.06117	-.00003	-.00074	.00115	-.00217
#2	.00376	47.071	.00023	.00206	-.00004	-.00005	.89230	.05482	-.00027	-.00110	.00109	-.00227

Check ?	None	Chk Pass	None	None	None	None	Chk Fail	None	None	None	None	None
Value							1.0000					
Range							-10.490%					

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	45.461	48429	.00520	-.01104	-.00110	-.00021	236.38	.00162	.00352	.00492	F 4.2715	-.00739
Stddev	.576	.05147	.00025	.00813	.00020	.00013	1.20	.00006	.00246	.00066	.0001	.00055
%RSD	1.2669	10.629	4.8409	73.617	18.298	59.936	.50901	3.6538	69.825	13.338	.00116	7.4122

#1	45.869	.44789	.00538	-.01679	-.00124	-.00012	237.23	.00157	.00178	.00538	4.2715	-.00778
#2	45.054	.52068	.00502	-.00529	-.00096	-.00030	235.53	.00166	.00526	.00445	4.2715	-.00700

Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None	Chk Fail	None
Value											5.0000	
Range											-10.490%	

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00537	-.01120	-.02397	-.00161	.00049	4.8127	-.01600	.00253	9.8164	.00307	.00394	.06741
Stddev	.00317	.00243	.00520	.00122	.00003	.1099	.00039	.00009	.1842	.00061	.00017	.00454
%RSD	58.984	21.697	21.697	75.799	5.1711	2.2837	2.4232	3.7428	1.8763	20.048	4.4292	6.7329

#1	.00761	-.01292	-.02765	-.00247	.00051	4.8904	-.01628	.00260	9.9466	.00350	.00381	.06420
#2	.00313	-.00948	-.02030	-.00075	.00047	4.7350	-.01573	.00247	9.6861	.00263	.00406	.07062

Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3364.4	60837.	6611.6
Stddev	6.2	457.	63.7
%RSD	.18379	.75038	.96406

#1	3360.1	60514.	6566.5
#2	3368.8	61160.	6656.6

Sample Name: CCV-3305006 Acquired: 6/6/2015 0:42:10 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51534	.48199	.90010	.47082	.49250	F .44728	-.00204	4.9094	.46754	.49855	.47048
Stddev	.00360	.00148	.00255	.00393	.01153	.01080	.00040	.1207	.00106	.00004	.00243
%RSD	.69903	.30716	.28297	.83566	2.3414	2.4153	19.576	2.4578	.22594	.00793	.51619

#1	.51279	.48094	.89830	.46804	.48434	.43964	-.00176	4.8241	.46829	.49852	.46876
#2	.51789	.48304	.90190	.47360	.50065	.45492	-.00232	4.9948	.46680	.49858	.47220

Check ?	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass				
Value						.50000					
Range						-10.490%					

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47037	2.2809	49.052	.94209	20.559	.51464	W .44854	5.0695	.49993	.93448	.98683
Stddev	.00119	.0653	1.182	.01791	.025	.00107	.00125	.0979	.00039	.00226	.00382
%RSD	.25209	2.8613	2.4093	1.9016	.12201	.20877	.27900	1.9320	.07722	.24220	.38664

#1	.46953	2.2348	48.216	.92942	20.542	.51388	.44766	5.0003	.49965	.93288	.98414
#2	.47121	2.3271	49.888	.95476	20.577	.51540	.44943	5.1388	.50020	.93608	.98953

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass					
Value							.50000				
Range							-10.000%				

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01663	.91986	.90258	4.5345	9.7038	.90200	.45684	.00069	.50622	.92184	-.03697
Stddev	.00301	.00206	.00407	.1617	.3459	.00579	.01143	.00289	.00443	.00225	.05358
%RSD	18.091	.22420	.45051	3.5650	3.5650	.64179	2.5030	420.25	.87481	.24439	144.90

#1	.01450	.91840	.89971	4.4202	9.4592	.89791	.44875	-.00136	.50935	.92024	.00091
#2	.01876	.92132	.90546	4.6488	9.9484	.90610	.46492	.00273	.50309	.92343	-.07486

Check ?	None	Chk Pass	None	Chk Pass	Chk Pass	None					
Value											
Range											

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.52346	.51191	.48091
Stddev	.00039	.00022	.01408
%RSD	.07522	.04370	2.9276

#1	.52374	.51175	.47096
#2	.52318	.51207	.49087

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3295.6	59066.	6364.8
Stddev	7.9	520.	133.1
%RSD	.23870	.88118	2.0919

#1	3290.1	59434.	6459.0
#2	3301.2	58698.	6270.7

Sample Name: CCB Acquired: 6/6/2015 0:44:38 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00067	-.00051	-.00057	.00201	.00009	-.00006	-.00010	-.00273	-.00028	.00036	.00051	-.00100
Stddev	.00012	.00009	.00403	.00014	.00050	.00001	.00278	.00534	.00028	.00038	.00001	.00027
%RSD	17.869	18.309	709.46	7.1426	579.68	23.884	2871.1	195.40	99.873	106.43	1.7434	26.850

#1	.00058	-.00044	-.00342	.00191	-.00027	-.00005	-.00206	.00104	-.00048	.00009	.00051	-.00081
#2	.00075	-.00057	.00228	.00211	.00044	-.00007	.00187	-.00651	-.00008	.00063	.00052	-.00119

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00161	.29531	.00573	-.00437	.00005	.00023	.23713	-.00007	-.00086	.00050	.00883	-.00005
Stddev	.00272	.01568	.00100	.00079	.00002	.00005	.02872	.00048	.00081	.00090	.00193	.00061
%RSD	168.36	5.3087	17.415	18.127	48.284	22.070	12.109	649.51	94.764	180.03	21.816	1123.8

#1	.00354	.30639	.00643	-.00493	.00003	.00019	.25744	.00026	-.00143	.00114	.01019	-.00048
#2	-.00031	.28422	.00502	-.00381	.00006	.00027	.21683	-.00041	-.00028	-.00014	.00747	.00038

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F.00789	-.00196	-.00419	-.00014	.00033	.00259	.00000	.00084	-.01830	.00013	.00003	.00113
Stddev	.00626	.00178	.00380	.00055	.00002	.00072	.00031	.00198	.01891	.00035	.00013	.00283
%RSD	79.248	90.730	90.730	392.56	6.1491	27.719	10166.	237.33	103.36	272.20	381.92	251.30

#1	.00347	-.00322	-.00688	.00025	.00032	.00208	-.00022	-.00057	-.03167	.00038	.00013	.00313
#2	.01232	-.00070	-.00150	-.00053	.00035	.00310	.00022	.00224	-.00493	-.00012	-.00006	-.00087

Check ?	Chk Fail	Chk Pass										
High Limit	.00500											
Low Limit	-.00500											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3366.3	60753.	6290.7
Stddev	6.2	118.	34.7
%RSD	.18405	.19414	.55231

#1	3370.6	60669.	6266.1
#2	3361.9	60836.	6315.3

Sample Name: CCVL3312280 Acquired: 6/6/2015 0:47:00 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01067	.09819	.01596	.09407	.00993	.00074	.10053	.20562	.00469	.01027	.00995	.01319
Stddev	.00032	.00027	.00071	.00056	.00013	.00007	.00181	.00717	.00005	.00006	.00017	.00027
%RSD	2.9826	.27248	4.4344	.59789	1.3063	9.6497	1.8035	3.4858	.97929	.56326	1.6601	2.0460

#1	.01090	.09800	.01646	.09367	.00983	.00079	.10181	.20056	.00472	.01031	.00983	.01338
#2	.01045	.09838	.01546	.09447	.01002	.00069	.09924	.21069	.00466	.01023	.01006	.01300

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08936	3.3527	F .01383	.21472	.01097	.01780	1.2291	.04110	2.7098	.01138	.01115	.01123
Stddev	.00069	.0556	.00021	.00333	.00011	.00024	.0110	.00001	.0236	.00109	.00250	.00248
%RSD	.77118	1.6585	1.5200	1.5497	1.0040	1.3647	.89591	.01611	.87176	9.5909	22.378	22.103

#1	.08887	3.3134	.01368	.21708	.01105	.01763	1.2213	.04110	2.7265	.01061	.01292	.00948
#2	.08985	3.3920	.01397	.21237	.01090	.01797	1.2369	.04109	2.6931	.01215	.00939	.01299

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .02317	.46530	.99574	.08990	.00985	.01821	.00987	.01509	.05370	.01111	.02412	.01785
Stddev	.00192	.00955	.02043	.00130	.00005	.00035	.00038	.00108	.00477	.00060	.00009	.00016
%RSD	8.2814	2.0519	2.0519	1.4447	.51332	1.9068	3.8286	7.1504	8.8853	5.3868	.37151	.87941

#1	.02182	.45855	.98129	.08898	.00982	.01796	.00960	.01586	.05033	.01153	.02406	.01796
#2	.02453	.47205	1.0102	.09082	.00989	.01845	.01014	.01433	.05708	.01069	.02419	.01773

Check ?	Chk Fail	Chk Pass										
Value	.01500											
Range	30.000%											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3345.6	60979.	6425.4
Stddev	5.2	326.	4.8
%RSD	.15577	.53538	.07504

#1	3349.2	61210.	6428.8
#2	3341.9	60748.	6422.0

Sample Name: 280-70162-E-1-A Acquired: 6/6/2015 0:49:39 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280384 6010b

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00034	.12898	.00521	.43276	.28366	-.00015	-.00320	15.456	-.00014
Stddev	.00040	.00007	.00574	.00166	.01063	.00002	.00088	.652	.00016
%RSD	117.79	.05623	110.23	.38353	3.7469	11.423	27.436	4.2185	113.07

#1	.00006	.12893	.00927	.43393	.27614	-.00013	-.00258	14.995	-.00025
#2	.00062	.12903	.00115	.43159	.29117	-.00016	-.00382	15.917	-.00003

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00125	.00166	.00569	.54810	57.212	.21662	12.130	.09875	.00058
Stddev	.00017	.00014	.00045	.02747	2.256	.01173	.582	.00447	.00011
%RSD	13.650	8.4413	7.8762	5.0111	3.9437	5.4169	4.8006	4.5260	18.373

#1	-.00137	.00156	.00538	.52868	55.617	.20832	11.718	.09559	.00066
#2	-.00113	.00176	.00601	.56752	58.807	.22491	12.542	.10191	.00050

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	444.34	.00040	.68773	.00027	1.9204	-.00011	.00332	19.278	41.256
Stddev	17.47	.00003	.00571	.00028	.0144	.00287	.00058	.945	2.023
%RSD	3.9325	6.5456	.83069	103.05	.74710	2593.4	17.384	4.9023	4.9023

#1	431.98	.00042	.69177	.00047	1.9306	.00192	.00291	18.610	39.826
#2	456.69	.00038	.68369	.00007	1.9103	-.00214	.00373	19.947	42.686

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00157	.12075	.00190	.00960	.00215	W -.05193	.00173	.00421	-.00172
Stddev	.00063	.00480	.00155	.00017	.00237	.00283	.00016	.00088	.00131
%RSD	39.791	3.9733	81.737	1.7312	110.42	5.4591	9.2419	20.930	76.252

#1	-.00113	.11736	.00299	.00948	.00382	-.05393	.00161	.00483	-.00079
#2	-.00202	.12414	.00080	.00972	.00047	-.04992	.00184	.00358	-.00265

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3100.5	57070.	6193.1
Stddev	13.1	1889.	168.5
%RSD	.42229	3.3101	2.7215

#1	3109.7	58406.	6312.2
#2	3091.2	55734.	6073.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00035	.12244	.00769	.39172	.25906	-.00005	-.00164	14.285	-.00031
Stddev	.00020	.00059	.00294	.00172	.00551	.00008	.00097	.311	.00002
%RSD	57.909	.48230	38.270	.43979	2.1269	153.93	59.587	2.1736	5.0345

#1	.00050	.12202	.00977	.39294	.26296	.00000	-.00232	14.505	-.00032
#2	.00021	.12286	.00561	.39050	.25517	-.00010	-.00095	14.065	-.00030

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00112	.00145	.00018	.18002	52.899	.19703	11.626	.09250	-.00001
Stddev	.00016	.00033	.00030	.00565	.996	.00099	.073	.00000	.00011
%RSD	14.469	22.861	165.87	3.1387	1.8820	.50022	.62985	.00115	947.37

#1	-.00100	.00122	.00039	.18401	53.603	.19772	11.677	.09250	.00007
#2	-.00123	.00168	-.00003	.17602	52.195	.19633	11.574	.09249	-.00009

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	409.53	.00058	.61611	.00075	1.6989	.00153	.00747	17.709	37.897
Stddev	9.00	.00024	.00308	.00060	.0013	.00038	.00200	.365	.781
%RSD	2.1965	41.304	.50024	80.495	.07414	25.174	26.801	2.0609	2.0609

#1	415.90	.00041	.61829	.00118	1.6998	.00180	.00889	17.967	38.449
#2	403.17	.00075	.61393	.00032	1.6980	.00125	.00606	17.451	37.345

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00074	.11163	.00210	.00912	-.00022	W -.05576	.00152	.00326	.00448
Stddev	.00063	.00282	.00066	.00012	.00064	.02647	.00070	.00031	.00262
%RSD	84.681	2.5282	31.410	1.2628	288.58	47.473	45.914	9.4373	58.590

#1	-.00119	.11362	.00257	.00904	.00023	-.07447	.00202	.00304	.00262
#2	-.00030	.10963	.00163	.00920	-.00068	-.03704	.00103	.00347	.00633

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3166.5	55962.	6150.2
Stddev	17.2	33.	129.1
%RSD	.54312	.05973	2.0997

#1	3178.7	55985.	6058.8
#2	3154.3	55938.	6241.5

Sample Name: 280-70162-E-3-A Acquired: 6/6/2015 0:55:08 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280384 6010b

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00084	.12125	.01858	.37248	.61114	-.00015	-.00423	188.70	.00004
Stddev	.00074	.00233	.00244	.00354	.00252	.00000	.00283	.42	.00010
%RSD	88.101	1.9178	13.125	.95112	.41285	.80217	66.993	.22263	260.12

#1	.00137	.12290	.01686	.37499	.60936	-.00015	-.00223	188.40	-.00003
#2	.00032	.11961	.02031	.36998	.61292	-.00015	-.00623	189.00	.00011

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00150	.00101	.00029	.19450	W 224.46	.75544	133.63	.77779	.05109
Stddev	.00013	.00013	.00005	.00400	.50	.00272	.96	.00531	.00063
%RSD	8.9886	12.691	17.039	2.0567	.22138	.36025	.71984	.68213	1.2253

#1	-.00160	.00092	.00032	.19733	224.11	.75352	134.31	.78154	.05153
#2	-.00140	.00110	.00025	.19167	224.81	.75737	132.95	.77404	.05064

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-.50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 917.25	.00138	.23476	.01008	69.949	.00379	.00875	14.467	30.960
Stddev	1.47	.00031	.00166	.00273	.540	.00200	.00362	.040	.086
%RSD	.15981	22.679	.70857	27.057	.77265	52.639	41.347	.27658	.27658

#1	916.22	.00160	.23593	.01200	70.331	.00238	.00619	14.496	31.021
#2	918.29	.00116	.23358	.00815	69.567	.00520	.01131	14.439	30.900

Check ?	Chk Warn	Chk Pass							
High Limit	500.00								
Low Limit	11.000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00151	1.1761	.00176	.00407	-.00849	-.03063	-.00143	.00166	-.00016
Stddev	.00088	.0015	.00129	.00008	.00369	.03130	.00040	.00061	.00036
%RSD	58.335	.12694	73.324	2.0071	43.485	102.16	27.690	36.531	226.95

#1	-.00089	1.1751	.00085	.00413	-.00588	-.05276	-.00171	.00123	.00009
#2	-.00214	1.1772	.00267	.00402	-.01110	-.00850	-.00115	.00209	-.00041

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2890.7	51391.	6020.8
Stddev	29.4	493.	27.4
%RSD	1.0166	.95950	.45483

#1	2869.9	51043.	6001.5
#2	2911.4	51740.	6040.2

Sample Name: 280-70162-E-4-A Acquired: 6/6/2015 0:57:52 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280384 6010b

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00098	.06583	-.00449	.28344	.15818	-.00001	-.00354	22.790	.00002
Stddev	.00071	.00013	.00086	.00614	.00088	.00003	.00078	.063	.00032
%RSD	72.230	.20159	19.097	2.1649	.55758	224.82	22.077	.27732	1430.1

#1	.00048	.06593	-.00510	.27910	.15880	-.00003	-.00299	22.834	.00025
#2	.00148	.06574	-.00388	.28777	.15756	.00001	-.00409	22.745	-.00020

Check ? Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00084	.00076	-.00046	.09649	25.360	.19573	13.305	.08213	-.00047
Stddev	.00016	.00008	.00023	.00159	.174	.00143	.058	.00000	.00017
%RSD	19.513	10.826	49.843	1.6429	.68452	.73158	.43392	.00004	35.119

#1	-.00072	.00070	-.00062	.09537	25.483	.19674	13.346	.08213	-.00059
#2	-.00095	.00082	-.00030	.09761	25.237	.19472	13.264	.08213	-.00036

Check ? Chk Pass
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	237.66	-.00007	.08336	.00223	.10985	.00111	.00929	22.465	48.075
Stddev	1.77	.00031	.00247	.00080	.00442	.00211	.00034	.123	.263
%RSD	.74605	468.86	2.9684	36.007	4.0197	190.72	3.6683	.54802	.54802

#1	238.91	-.00028	.08161	.00279	.11297	-.00039	.00953	22.378	47.888
#2	236.40	.00015	.08511	.00166	.10673	.00260	.00905	22.552	48.261

Check ? Chk Pass
 High Limit
 Low Limit

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00089	.20841	.00379	.00193	.00045	-.04411	-.00013	.00104	.00038
Stddev	.00106	.00201	.00153	.00022	.00060	.01202	.00022	.00013	.00187
%RSD	119.02	.96499	40.312	11.660	133.57	27.241	172.45	12.428	490.21

#1	-.00014	.20983	.00271	.00209	.00002	-.03561	-.00028	.00113	.00170
#2	-.00164	.20699	.00487	.00177	.00087	-.05260	.00003	.00095	-.00094

Check ? Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3099.3	56078.	6200.9
Stddev	31.5	333.	7.7
%RSD	1.0174	.59319	.12493

#1	3121.6	55843.	6195.4
#2	3077.0	56313.	6206.4

Sample Name: 280-70162-E-5-A Acquired: 6/6/2015 1:00:31 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280384 6010b

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00180	.04321	W 2.7751	-.00411	1.7024	.04062	-.00034	-.00356	W 799.46
Stddev	.00116	.00087	.0939	.00474	.0112	.00092	.00005	.00023	40.84
%RSD	64.407	2.0086	3.3819	115.38	.65578	2.2666	15.533	6.5662	5.1081

#1	.00098	.04260	2.8415	-.00746	1.7103	.04127	-.00038	-.00339	828.34
#2	.00261	.04382	2.7088	-.00076	1.6945	.03997	-.00030	-.00372	770.58

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn				
High Limit			500.00						500.00
Low Limit			3.2000						-.05000

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00598	.00404	.00079	.01717	.09575	F 566.09	W 4.3821	W 1138.2	3.1032
Stddev	.00030	.00037	.00005	.00042	.00064	16.57	.1085	20.8	.0117
%RSD	5.0133	9.0984	5.7043	2.4197	.66738	2.9263	2.4760	1.8287	.37547

#1	.00620	.00430	.00076	.01687	.09620	577.81	4.4588	1153.0	3.0950
#2	.00577	.00378	.00082	.01746	.09530	554.38	4.3053	1123.5	3.1115

Check ?	Chk Pass	Chk Fail	Chk Warn	Chk Warn	Chk Pass				
High Limit						500.00	2.0000	500.00	
Low Limit						-2.0000	-.01000	-.10000	

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01231	W 8077.5	.04266	.07328	.01030	F 2018.3	.01952	.03196	7.6194
Stddev	.00007	232.8	.00021	.00757	.00108	15.4	.00230	.00089	.1122
%RSD	.56984	2.8825	.49093	10.324	10.443	.76352	11.804	2.7892	1.4725

#1	.01236	8242.2	.04281	.07863	.00954	2029.2	.02115	.03132	7.6988
#2	.01226	7912.9	.04252	.06793	.01106	2007.4	.01789	.03259	7.5401

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		500.00				200.00			
Low Limit		11.000				-2.0000			

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.306	-.00220	W 11.370	.00429	.00191	-.00773	.66778	.01066	.01194
Stddev	.240	.00331	.360	.00482	.00013	.00261	.00868	.00139	.00048
%RSD	1.4725	150.33	3.1640	112.24	6.9343	33.810	1.3004	13.021	4.0019

#1	16.475	.00014	11.625	.00089	.00201	-.00588	.67392	.01165	.01228
#2	16.136	-.00454	11.116	.00769	.00182	-.00958	.66164	.00968	.01160

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			5.0000						
Low Limit			-.01000						

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	-.00028
Stddev	.00040
%RSD	143.09

#1	.00000
#2	-.00056

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-70162-E-5-A Acquired: 6/6/2015 1:00:31 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 280384 6010b

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2291.7	40763.	5486.4
Stddev	47.3	468.	274.1
%RSD	2.0650	1.1479	4.9960
#1	2325.1	40432.	5292.6
#2	2258.2	41094.	5680.3

Sample Name: CCVH-3304613 Acquired: 6/6/2015 1:03:54 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00285	48.512	-.00130	.00141	-.00025	.00006	W .90418	.05853	-.00024	-.00098	.00096
Stddev	.00041	.137	.00120	.00048	.00067	.00004	.00824	.01186	.00003	.00016	.00027
%RSD	14.341	.28177	92.104	34.282	273.34	69.435	.91173	20.269	12.047	16.490	28.359

#1	.00314	48.609	-.00045	.00107	.00023	.00003	.89835	.06691	-.00026	-.00109	.00116
#2	.00256	48.415	-.00214	.00175	-.00072	.00010	.91001	.05014	-.00022	-.00086	.00077

Check ?	None	Chk Pass	None	None	None	None	Chk Warn	None	None	None	None
Value							1.0000				
Range							-5.0000%				

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00271	46.960	1.2839	.00881	.00387	-.00146	-.00024	243.64	.00156	.00328	.00173
Stddev	.00028	.039	.1314	.00167	.00356	.00001	.00023	.00	.00024	.00052	.00107
%RSD	10.210	.08309	10.234	18.894	91.894	.81532	92.701	.00186	15.095	15.826	61.847

#1	-.00251	46.987	1.3768	.00999	.00638	-.00145	-.00040	243.65	.00173	.00365	.00248
#2	-.00290	46.932	1.1910	.00764	.00136	-.00147	-.00008	243.64	.00139	.00292	.00097

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 4.3632	-.00614	.00692	-.00709	-.01517	-.00172	.00081	4.8720	-.01596	.00405	10.123
Stddev	.0449	.00042	.00301	.02359	.05049	.00203	.00019	.0326	.00003	.00010	.014
%RSD	1.0282	6.9020	43.545	332.90	332.90	117.41	23.602	.66859	.21860	2.3951	.13845

#1	4.3315	-.00644	.00479	.00960	.02054	-.00029	.00095	4.8950	-.01598	.00398	10.132
#2	4.3949	-.00584	.00904	-.02377	-.05087	-.00316	.00068	4.8490	-.01593	.00412	10.113

Check ?	Chk Fail	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	5.0000										
Range	-10.490%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00272	.00143	.07277
Stddev	.00054	.00021	.00283
%RSD	19.736	14.797	3.8915

#1	.00234	.00128	.07077
#2	.00310	.00158	.07478

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3321.0	58944.	6275.5
Stddev	7.7	682.	13.7
%RSD	.23087	1.1567	.21899

#1	3315.6	58462.	6265.8
#2	3326.4	59426.	6285.2

Sample Name: CCV-3305006 Acquired: 6/6/2015 1:06:30 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51838	.47916	W .89595	.46739	.49110	F .44598	-.00260	4.8520	.46566	.48868	.47198
Stddev	.00361	.00124	.00711	.00491	.00952	.00888	.00060	.0891	.00179	.00355	.00267
%RSD	.69689	.25967	.79361	1.0495	1.9375	1.9921	23.277	1.8371	.38483	.72686	.56486

#1	.51582	.48004	.90098	.47086	.48437	.43970	-.00217	4.7890	.46693	.49119	.47386
#2	.52093	.47828	.89092	.46392	.49783	.45226	-.00303	4.9151	.46439	.48617	.47009

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			1.0000			.50000					
Range			-10.000%			-10.490%					

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47728	2.2533	49.253	.95117	20.541	.51035	F .43921	F 5.5963	.48927	.92007	.96634
Stddev	.00179	.0468	.928	.02068	.041	.00240	.00296	.0960	.00341	.01120	.01102
%RSD	.37491	2.0762	1.8836	2.1742	.19918	.46987	.67430	1.7163	.69739	1.2170	1.1399

#1	.47601	2.2203	48.597	.93655	20.512	.50866	.44130	5.5284	.49168	.92799	.97413
#2	.47855	2.2864	49.909	.96579	20.570	.51205	.43711	5.6642	.48685	.91215	.95855

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass					
Value							.50000	5.0000			
Range							-10.490%	10.490%			

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07915	.90620	F .88706	4.5452	9.7268	F .88506	.45832	.00080	.49938	.90533	-.05621
Stddev	.00399	.01052	.01035	.0607	.1300	.01275	.00870	.00034	.00007	.00963	.03251
%RSD	5.0476	1.1604	1.1672	1.3366	1.3366	1.4401	1.8985	42.843	.01317	1.0634	57.841

#1	.08197	.91363	.89438	4.5023	9.6348	.89407	.45217	.00104	.49933	.91214	-.03322
#2	.07632	.89876	.87974	4.5882	9.8187	.87604	.46447	.00056	.49942	.89853	-.07920

Check ?	None	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass	Chk Pass	None
Value			1.0000			1.0000					
Range			-10.490%			-10.490%					

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.51776	.49913	.48438
Stddev	.00659	.00972	.00598
%RSD	1.2725	1.9469	1.2346

#1	.51310	.49225	.48015
#2	.52241	.50600	.48861

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3364.2	60680.	6566.0
Stddev	4.7	30.	149.9
%RSD	.14012	.05004	2.2831

#1	3360.9	60659.	6672.0
#2	3367.6	60702.	6460.0

Sample Name: CCB Acquired: 6/6/2015 1:09:00 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00034	-.00035	.00405	.00082	-.00013	.00000	-.00048	-.00532	-.00004	-.00009	.00024
Stddev	.00011	.00074	.00072	.00084	.00014	.0000	.00109	.00420	.00015	.00007	.00012
%RSD	32.671	213.22	17.670	102.99	108.19	4074.6	227.15	79.076	380.85	79.198	48.409

#1	.00041	.00018	.00355	.00141	-.00023	.00002	.00029	-.00829	-.00014	-.00014	.00032
#2	.00026	-.00087	.00456	.00022	-.00003	-.00002	-.00125	-.00234	.00007	-.00004	.00016

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00135	.00093	F .50607	.00348	.00373	.00009	-.00007	F .61031	.00027	-.00035	.00005
Stddev	.00055	.00066	.03286	.00123	.01219	.00001	.00005	.01438	.00031	.00038	.00310
%RSD	40.419	70.328	6.4941	35.422	327.05	12.604	72.973	2.3554	116.19	107.72	6386.7

#1	-.00174	.00047	.52931	.00435	-.00489	.00009	-.00010	.62048	.00005	-.00061	-.00215
#2	-.00096	.00140	.48283	.00261	.01234	.00008	-.00003	.60015	.00048	-.00008	.00224

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit			.50000					.50000			
Low Limit			-.50000					-.50000			

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06346	.00007	F .00996	-.00908	-.01942	.00038	.00009	.00369	-.00038	.00118	F -.06244
Stddev	.00887	.00002	.00357	.00568	.01215	.00000	.00007	.00161	.00021	.00236	.05969
%RSD	13.970	28.279	35.902	62.540	62.540	.98432	73.469	43.745	55.603	199.23	95.600

#1	.06973	.00009	.01248	-.01309	-.02801	.00039	.00004	.00255	-.00023	.00285	-.02023
#2	.05719	.00006	.00743	-.00506	-.01083	.00038	.00014	.00483	-.00053	-.00048	-.10465

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail						
High Limit			.00500								.05000
Low Limit			-.00500								-.05000

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00042	.00077	.00254
Stddev	.00034	.00042	.00158
%RSD	79.377	54.321	62.138

#1	.00066	.00106	.00143
#2	.00019	.00047	.00366

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3380.0	62041.	6476.2
Stddev	.8	296.	82.8
%RSD	.02255	.47769	1.2793

#1	3379.5	62250.	6417.6
#2	3380.6	61831.	6534.7

Sample Name: CCVL33122800 Acquired: 6/6/2015 1:11:21 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01043	.09582	.01307	.09223	.00969	.00081	.09763	.20307	.00459	.01020	.01024	.01348
Stddev	.00056	.00045	.00043	.00099	.00012	.00008	.00182	.00515	.00011	.00015	.00011	.00027
%RSD	5.4018	.47227	3.3002	1.0703	1.2312	9.3893	1.8657	2.5355	2.4980	1.4457	1.0517	1.9830

#1	.01083	.09614	.01276	.09293	.00960	.00086	.09892	.19943	.00467	.01030	.01017	.01329
#2	.01003	.09550	.01337	.09153	.00977	.00076	.09634	.20671	.00451	.01009	.01032	.01367

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.12389	3.4890	F .01496	.21806	.01134	.01748	F 1.5271	.04030	2.6525	.00976	.05253	.00904
Stddev	.00239	.0385	.00020	.00018	.00009	.00033	.0364	.00052	.0142	.00081	.00408	.00179
%RSD	1.9282	1.1024	1.3135	.08065	.83012	1.9001	2.3825	1.2850	.53620	8.3304	7.7749	19.842

#1	.12221	3.4618	.01509	.21818	.01127	.01724	1.5014	.03993	2.6625	.01033	.05542	.00777
#2	.12558	3.5162	.01482	.21793	.01140	.01771	1.5529	.04066	2.6424	.00918	.04964	.01031

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value			.01000				1.0000					
Range			30.000%				30.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01894	.45314	.96971	.09053	.00969	.01690	.00996	.01637	.04897	.01096	.02229	.01829
Stddev	.00178	.01182	.02529	.00083	.00010	.00088	.00012	.00193	.01927	.00005	.00046	.00106
%RSD	9.3849	2.6076	2.6076	.91426	1.0211	5.2020	1.2087	11.769	39.349	.44995	2.0428	5.7797

#1	.02020	.46149	.98759	.08994	.00962	.01752	.00988	.01773	.03534	.01100	.02196	.01754
#2	.01768	.44478	.95183	.09111	.00976	.01628	.01005	.01501	.06259	.01093	.02261	.01903

Check ?	Chk Pass											
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3439.0	62316.	6563.2
Stddev	6.5	80.	5.2
%RSD	.18905	.12886	.07998

#1	3434.4	62259.	6566.9
#2	3443.6	62373.	6559.4

Sample Name: MB 280-280399/1-A Acquired: 6/6/2015 1:14:01 Type: Unk

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: 6/5 Custom ID2: Custom ID3:

Comment: 280399 6010b s

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0030	.00393	.00161	.00036	.00087	-0.0014	.00064	W .19761	-0.00008
Stddev	.00040	.00019	.00142	.00003	.00003	.00003	.00003	.00792	.00007
%RSD	135.17	4.7597	88.433	8.5139	3.2432	24.788	5.1817	4.0063	92.281

#1	-0.0001	.00406	.00261	.00039	.00089	-0.0012	.00066	.20321	-0.0003
#2	-0.0058	.00380	.00060	.00034	.00085	-0.0016	.00061	.19201	-0.0013

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								.10000	
Low Limit								-.10000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00024	.00047	-0.0083	.01935	.41246	.00433	.05428	.00036	.00002
Stddev	.00039	.00018	.00012	.00210	.01804	.00034	.00161	.00001	.00012
%RSD	166.29	38.868	14.101	10.850	4.3737	7.8450	2.9664	3.3945	674.10

#1	-0.0004	.00034	-0.0075	.02084	.39970	.00457	.05314	.00036	-0.0007
#2	.00052	.00060	-0.0092	.01787	.42521	.00409	.05542	.00037	.00010

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .53472	.00033	.01035	.00031	.04715	-0.0127	.00748	-0.00434	-0.00929
Stddev	.00700	.00012	.00231	.00161	.00441	.00141	.00064	.01106	.02366
%RSD	1.3092	35.870	22.314	511.10	9.3477	111.40	8.4975	254.71	254.71

#1	.53967	.00042	.00872	-0.0082	.05026	-0.00226	.00703	.00348	.00744
#2	.52977	.00025	.01199	.00145	.04403	-0.0027	.00793	-.01216	-.02602

Check ?	Chk Warn	Chk Pass	None						
High Limit	.50000								
Low Limit	-.50000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00676	.00063	.00323	-0.00019	.00011	-0.01105	.00016	.00290	.00261
Stddev	.00123	.00005	.00055	.00021	.00069	.00701	.00017	.00086	.00140
%RSD	18.194	8.0521	17.193	106.70	616.32	63.391	108.40	29.611	53.392

#1	.00763	.00060	.00362	-0.00005	-0.00038	-0.00610	.00028	.00350	.00163
#2	.00589	.00067	.00283	-0.00034	.00060	-0.01600	.00004	.00229	.00360

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3450.6	62688.	6373.9
Stddev	1.4	130.	117.2
%RSD	.04064	.20695	1.8381

#1	3449.6	62596.	6291.0
#2	3451.6	62780.	6456.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04816	1.6855	F .83685	.85877	1.8784	.04242	1.7432	44.938	F .08688
Stddev	.00053	.0615	.03616	.03467	.0083	.00040	.0743	.058	.00364
%RSD	1.1065	3.6487	4.3213	4.0366	.44358	.93623	4.2643	.12937	4.1840

#1	.04779	1.6420	.81128	.83426	1.8726	.04214	1.6906	44.897	.08431
#2	.04854	1.7290	.86242	.88329	1.8843	.04271	1.7957	44.979	.08945

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Fail
High Limit			1.1000						.11000
Low Limit			.85000						.08700

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.44801	F .17420	.22111	F .86647	47.331	.90690	46.673	46814	F .84813
Stddev	.01799	.00298	.00156	.00927	.145	.00224	.148	.00127	.03612
%RSD	4.0158	1.7079	.70534	1.0696	.30689	.24686	.31793	.27206	4.2584

#1	.43529	.17209	.22001	.85991	47.229	.90532	46.568	.46724	.82260
#2	.46073	.17630	.22222	.87302	47.434	.90848	46.777	.46904	.87367

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit		.05700		1.2000					1.1000
Low Limit		.04350		.87000					.86000

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.715	.44635	8.9635	.45590	1.6873	.43411	1.6817	F .85931	1.8389
Stddev	1.166	.01911	.3966	.02170	.0825	.01944	.0803	.00350	.0075
%RSD	2.3938	4.2822	4.4243	4.7601	4.8898	4.4773	4.7727	.40716	.40716

#1	47.890	.43284	8.6831	.44056	1.6289	.42036	1.6249	.86178	1.8442
#2	49.539	.45987	9.2439	.47125	1.7456	.44785	1.7385	.85683	1.8336

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Fail	None
High Limit								7.0000	
Low Limit								1.0000	

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 1.6437	F .86993	.91696	.91636	F 1.6694	1.8997	.47693	.45427	.46392
Stddev	.0797	.00018	.00701	.00192	.0811	.0187	.00043	.00221	.01515
%RSD	4.8479	.02069	.76450	.20953	4.8559	.98562	.08931	.48613	3.2660

#1	1.5874	.87005	.91200	.91501	1.6121	1.9129	.47663	.45271	.45320
#2	1.7001	.86980	.92191	.91772	1.7267	1.8865	.47723	.45583	.47463

Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	2.2000	1.1000			2.2000				
Low Limit	1.6800	.89000			1.6800				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3362.0	61220.	6578.5
Stddev	83.3	84.	28.6
%RSD	2.4770	.13722	.43406

#1	3420.9	61279.	6558.3
#2	3303.1	61161.	6598.7

Sample Name: 280-70148-B-1-A Acquired: 6/6/2015 1:18:48 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280399 6010b s

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00598	145.03	.13858	.21732	3.0245	.00441	.00104	159.50	.04233
Stddev	.00085	.36	.00489	.00136	.0126	.00007	.00171	.32	.00026
%RSD	14.154	.24760	3.5287	.62672	.41500	1.6244	164.38	.20164	.61526

#1	.00658	145.29	.13512	.21636	3.0334	.00447	-.00017	159.72	.04215
#2	.00539	144.78	.14204	.21828	3.0157	.00436	.00225	159.27	.04251

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10946	W .35906	7.5960	W 517.95	28.627	.08538	28.565	6.0402	.04561
Stddev	.00143	.00088	.2035	1.28	.079	.00062	.746	.1458	.00027
%RSD	1.3061	.24449	2.6786	.24775	.27606	.73123	2.6101	2.4140	.58839

#1	.10845	.35844	7.7399	518.86	28.682	.08582	29.092	6.1433	.04542
#2	.11047	.35969	7.4522	517.04	28.571	.08494	28.038	5.9371	.04580

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass				
High Limit		.10000		500.00					
Low Limit		-.01000		40.000					

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.2320	.37822	W 6.7706	W 21.902	5.6174	-.00775	.02331	2.4424	5.2267
Stddev	.0084	.00377	.0479	.135	.0202	.00195	.00115	.0158	.0337
%RSD	.15984	.99664	.70690	.61468	.35946	25.192	4.9250	.64514	.64514

#1	5.2379	.37556	6.7368	21.807	5.6031	-.00913	.02412	2.4535	5.2505
#2	5.2260	.38089	6.8044	21.997	5.6317	-.00637	.02250	2.4312	5.2028

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass				
High Limit			2.0000	10.000					
Low Limit			-1.0000	-.00300					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50824	2.6699	.12809	5.2762	.00147	F -.31913	.55304	W 10.464	.20743
Stddev	.00201	.0116	.01144	.1312	.00401	.04536	.01530	.255	.00127
%RSD	.39617	.43337	8.9299	2.4873	272.11	14.214	2.7661	2.4322	.61176

#1	.50682	2.6781	.13617	5.3689	.00431	-.35121	.56385	10.644	.20653
#2	.50967	2.6617	.12000	5.1834	-.00136	-.28706	.54222	10.284	.20833

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Warn	Chk Pass				
High Limit						50.000		10.000	
Low Limit						-.10000		-.00500	

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3518.7	64305.	7134.0
Stddev	16.3	1272.	66.9
%RSD	.46262	1.9783	.93713

#1	3530.2	63405.	7181.3
#2	3507.2	65204.	7086.8

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00169	32.291	.03256	.04682	.67414	.00089	-.00336	36.204	.00853
Stddev	.00035	.033	.00011	.00055	.00006	.00001	.00234	.042	.00021
%RSD	20.578	.10173	.33609	1.1739	.00879	1.2608	69.543	.11497	2.5166

#1	.00144	32.315	.03264	.04720	.67418	.00089	-.00171	36.233	.00869
#2	.00194	32.268	.03249	.04643	.67410	.00090	-.00502	36.175	.00838

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02409	.07641	1.6677	120.83	6.5220	.02306	6.8149	1.4133	.00865
Stddev	.00021	.00108	.0039	.30	.0416	.00027	.0006	.0002	.00007
%RSD	.86452	1.4150	.23552	.24661	.63796	1.1684	.00809	.01457	.80598

#1	.02394	.07564	1.6650	121.04	6.5515	.02287	6.8145	1.4134	.00860
#2	.02423	.07717	1.6705	120.62	6.4926	.02325	6.8153	1.4131	.00870

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.2470	.08412	1.4419	4.9425	1.1889	-.00186	.01332	.55303	1.1835
Stddev	.0047	.00110	.0080	.0297	.0055	.00027	.00769	.01232	.0264
%RSD	.37825	1.3022	.55550	.60189	.46275	14.391	57.752	2.2270	2.2270

#1	1.2437	.08334	1.4362	4.9635	1.1850	-.00167	.00788	.54432	1.1649
#2	1.2503	.08489	1.4476	4.9214	1.1928	-.00205	.01877	.56174	1.2021

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.11564	.59412	.03511	1.1898	-.00019	F -.11694	.12910	2.5340	.04732
Stddev	.00045	.00165	.00154	.0004	.00041	.00870	.00116	.0017	.00056
%RSD	.38874	.27711	4.3870	.02905	216.82	7.4420	.89965	.06853	1.1788

#1	.11532	.59529	.03402	1.1900	.00010	-.11078	.12992	2.5328	.04772
#2	.11596	.59296	.03619	1.1895	-.00048	-.12309	.12828	2.5352	.04693

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass				
High Limit						50.000			
Low Limit						-10000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3451.9	61161.	6590.4
Stddev	16.0	24.	7.5
%RSD	.46318	.03964	.11429

#1	3440.6	61144.	6595.7
#2	3463.2	61178.	6585.1

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02802	88.015	.47669	.55332	2.4130	.02435	F .90944	113.36	.05999
Stddev	.00059	.265	.00311	.00178	.0024	.00001	.00269	.41	.00014
%RSD	2.1017	.30054	.65154	.32107	.10119	.05639	.29588	.36308	.23361

#1	.02760	87.828	.47888	.55207	2.4148	.02436	.90754	113.65	.05989
#2	.02843	88.202	.47449	.55458	2.4113	.02434	.91134	113.07	.06009

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.27115	W .22507	.48414	114.60	41.457	.52438	42.532	2.3280	.43632
Stddev	.00000	.00054	.00047	1.15	.320	.00424	.181	.0068	.00067
%RSD	.00094	.24160	.09639	1.0009	.77073	.80906	.42623	.29201	.15243

#1	.27115	.22469	.48447	115.41	41.683	.52738	42.404	2.3232	.43679
#2	.27115	.22546	.48381	113.79	41.231	.52138	42.660	2.3328	.43585

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	28.814	.31478	W 7.7974	W 14.026	3.4932	.14066	.90198	2.5851	5.5320
Stddev	.299	.00183	.0109	.028	.0046	.00236	.00742	.0121	.0258
%RSD	1.0388	.58250	.14021	.19754	.13057	1.6748	.82306	.46600	.46600

#1	28.602	.31608	7.7896	14.006	3.4964	.13900	.90723	2.5936	5.5503
#2	29.025	.31349	7.8051	14.045	3.4900	.14233	.89673	2.5765	5.5138

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass				
High Limit			2.0000	10.000					
Low Limit			-1.0000	-.00300					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.93238	1.7548	.52458	4.3175	.85492	.91278	.57432	2.3124	.35812
Stddev	.01028	.0037	.00195	.0042	.00865	.03156	.00188	.0055	.00106
%RSD	1.1027	.20894	.37143	.09619	1.0116	3.4571	.32733	.23915	.29659

#1	.93965	1.7574	.52320	4.3146	.86104	.93509	.57565	2.3085	.35887
#2	.92511	1.7522	.52596	4.3205	.84881	.89046	.57299	2.3163	.35737

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3481.9	61519.	6746.8
Stddev	.5	88.	52.4
%RSD	.01452	.14269	.77630

#1	3481.5	61582.	6709.8
#2	3482.2	61457.	6783.9

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04345	106.97	.73888	.89924	3.3934	.03785	F 1.4355	165.92	.09254
Stddev	.00040	.10	.00319	.00775	.0043	.00004	.0093	.01	.00068
%RSD	.91753	.08945	.43207	.86192	.12540	.11443	.64614	.00796	.73609

#1	.04317	107.04	.73662	.90472	3.3904	.03788	1.4420	165.91	.09302
#2	.04373	106.90	.74113	.89376	3.3964	.03782	1.4289	165.93	.09206

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.41322	W .31987	.81098	133.28	60.926	.83131	65.181	3.1554	.68738
Stddev	.00350	.00298	.00432	.04	.254	.00459	.084	.0065	.00638
%RSD	.84617	.93069	.53291	.02780	.41738	.55233	.12847	.20702	.92814

#1	.41569	.32198	.81404	133.26	60.747	.82807	65.122	3.1508	.69189
#2	.41075	.31777	.80793	133.31	61.106	.83456	65.240	3.1600	.68286

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	44.328	.49018	W 11.564	W 15.491	5.5509	.25434	1.4024	2.7355	5.8539
Stddev	.333	.00479	.112	.021	.0603	.00589	.0127	.0219	.0468
%RSD	.75187	.97682	.96739	.13680	1.0859	2.3157	.90211	.80019	.80019

#1	44.564	.49357	11.643	15.506	5.5935	.25851	1.4113	2.7510	5.8870
#2	44.093	.48680	11.485	15.476	5.5083	.25018	1.3934	2.7200	5.8208

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass				
High Limit			2.0000	10.000					
Low Limit			-1.0000	-.00300					

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.3990	2.3503	.81894	5.4065	1.2959	1.4459	.76312	3.8503	.52265
Stddev	.0187	.0062	.00040	.0073	.0166	.0229	.00081	.0089	.00720
%RSD	1.3390	.26527	.04928	.13584	1.2816	1.5819	.10663	.23055	1.3775

#1	1.4123	2.3459	.81923	5.4013	1.3077	1.4297	.76369	3.8441	.52774
#2	1.3858	2.3547	.81866	5.4117	1.2842	1.4620	.76254	3.8566	.51756

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3434.3	61231.	6834.8
Stddev	1.4	307.	11.9
%RSD	.04203	.50083	.17415

#1	3433.2	61448.	6826.4
#2	3435.3	61014.	6843.2

Sample Name: CCVH-3304613 Acquired: 6/6/2015 1:29:06 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00266	48.876	.00049	.00139	.00132	.00007	W .94412	.07536	-.00017	-.00124	.00081
Stddev	.00018	.484	.00220	.00107	.00042	.00005	.00273	.00996	.00016	.00013	.00003
%RSD	6.8250	.99107	452.34	76.985	31.443	72.925	.28950	13.212	93.183	10.425	3.6428

#1	.00279	48.533	.00204	.00064	.00162	.00003	.94218	.08240	-.00028	-.00133	.00079
#2	.00254	49.218	-.00107	.00215	.00103	.00010	.94605	.06832	-.00006	-.00115	.00083

Check ?	None	Chk Pass	None	None	None	None	Chk Warn	None	None	None	None
Value							1.0000				
Range							-5.0000%				

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00133	47.717	.30100	.00551	-.00571	-.00113	.00011	246.63	.00171	.00454	.00523
Stddev	.00127	.340	.02215	.00128	.00502	.00009	.00038	1.85	.00047	.00217	.00073
%RSD	95.503	.71320	7.3593	23.280	87.944	7.6322	350.65	.75201	27.481	47.883	13.867

#1	-.00223	47.476	.28534	.00460	-.00216	-.00107	-.00016	245.32	.00205	.00608	.00574
#2	-.00043	47.958	.31667	.00642	-.00926	-.00119	.00038	247.94	.00138	.00300	.00472

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 4.5086	-.00777	.00622	-.00659	-.01409	-.00213	.00106	5.0185	-.01543	.00329	10.326
Stddev	.0367	.00176	.00446	.01046	.02239	.00022	.00006	.0003	.00028	.00035	.093
%RSD	.81481	22.684	71.614	158.88	158.88	10.150	5.6054	.00621	1.7859	10.597	.89833

#1	4.4827	-.00901	.00307	.00081	.00174	-.00229	.00102	5.0183	-.01524	.00304	10.261
#2	4.5346	-.00652	.00938	-.01399	-.02993	-.00198	.00110	5.0187	-.01563	.00353	10.392

Check ?	Chk Warn	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	5.0000										
Range	-5.0000%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00301	.00198	.07212
Stddev	.00019	.00072	.00127
%RSD	6.3806	36.332	1.7541

#1	.00287	.00249	.07302
#2	.00314	.00147	.07123

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3324.8	59439.	6360.5
Stddev	.9	94.	53.8
%RSD	.02817	.15884	.84540

#1	3325.5	59372.	6398.6
#2	3324.1	59506.	6322.5

Sample Name: CCV-3305006 Acquired: 6/6/2015 1:31:41 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.54007	.50399	.93602	.48316	.51880	.46958	-.00222	5.1663	.48225	.50699	.48460	.49632	2.4055
Stddev	.00090	.00086	.00387	.00157	.00285	.00349	.00011	.0552	.00088	.00045	.00016	.00325	.0260
%RSD	.16590	.17153	.41371	.32450	.55022	.74388	5.0282	1.0680	.18154	.08924	.03291	.65381	1.0810

#1	.54070	.50338	.93328	.48205	.52082	.47205	-.00214	5.2053	.48163	.50667	.48472	.49862	2.4238
#2	.53943	.50460	.93876	.48426	.51679	.46711	-.00230	5.1273	.48286	.50731	.48449	.49403	2.3871

Check ?	Chk Pass	None	Chk Pass										
Value													
Range													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.699	.99529	21.402	.52962	.45534	5.2231	.50928	.96226	1.0077	.02663	.94863	.93271	4.7504
Stddev	.384	.00987	.049	.00036	.00059	.0570	.00150	.00676	.0026	.00388	.00300	.00068	.0844
%RSD	.74312	.99183	.23073	.06833	.12958	1.0907	.29429	.70261	.25790	14.572	.31575	.07315	1.7769

#1	51.970	1.0023	21.437	.52936	.45492	5.2634	.50823	.95748	1.0059	.02388	.94651	.93320	4.8101
#2	51.427	.98831	21.367	.52988	.45576	5.1828	.51034	.96704	1.0096	.02937	.95075	.93223	4.6907

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass									
Value														
Range														

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.166	.91937	.48176	.00023	.51802	.94424	-.01484	.53038	.52529	.51223
Stddev	.181	.00532	.00442	.00113	.00072	.00224	.01268	.00036	.00746	.00480
%RSD	1.7769	.57905	.91715	486.80	.13875	.23755	85.454	.06729	1.4197	.93727

#1	10.294	.91560	.48488	.00103	.51853	.94265	-.00587	.53013	.52002	.51563
#2	10.038	.92313	.47864	-.00057	.51751	.94582	-.02381	.53063	.53056	.50884

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3337.1	59893.	6333.9
Stddev	13.6	17.	97.4
%RSD	.40886	.02805	1.5376

#1	3346.7	59881.	6265.0
#2	3327.4	59905.	6402.7

Sample Name: CCB Acquired: 6/6/2015 1:34:10 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247	Fe2599
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00036	.00331	.00292	.00065	-.00024	.00003	-.00042	-.00250	-.00033	.00010	.00055	-.00045	.00475
Stddev	.00002	.00026	.00059	.00107	.00011	.00005	.00311	.00070	.00012	.00011	.00012	.00035	.00047
%RSD	5.0870	7.8241	20.312	164.51	43.634	149.67	735.30	27.937	36.132	103.32	22.630	77.490	9.8541

#1	.00034	.00350	.00334	.00141	-.00017	.00000	-.00262	-.00299	-.00024	.00003	.00046	-.00020	.00508
#2	.00037	.00313	.00250	-.00011	-.00032	.00007	.00178	-.00201	-.00041	.00018	.00064	-.00069	.00442

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.21424	.00437	-.00303	.00027	.00000	.11942	-.00047	-.00222	.00070	.01751	-.00177	.00412	.00227
Stddev	.04866	.00264	.00238	.00007	.00020	.01127	.00007	.00030	.00077	.00008	.00264	.00096	.00765
%RSD	22.712	60.482	78.501	25.654	4144.0	9.4368	15.232	13.622	108.80	.44375	149.28	23.410	337.44

#1	.17984	.00624	-.00135	.00032	.00015	.12738	-.00052	-.00244	.00016	.01746	-.00364	.00343	-.00314
#2	.24865	.00250	-.00472	.00022	-.00014	.11145	-.00042	-.00201	.00124	.01757	.00010	.00480	.00767

Check ?	Chk Pass												
High Limit													
Low Limit													

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00485	-.00073	.00018	.00290	-.00015	.00202	-.03802	.00027	.00080	.00002
Stddev	.01636	.00015	.00006	.00098	.00017	.00107	.01483	.00039	.00005	.00354
%RSD	337.44	20.783	32.483	33.889	112.27	52.618	39.017	142.72	6.3744	17456.

#1	-.00672	-.00063	.00014	.00360	-.00003	.00127	-.04850	.00055	.00076	.00252
#2	.01642	-.00084	.00022	.00221	-.00027	.00278	-.02753	.00000	.00083	-.00248

Check ?	Chk Pass									
High Limit										
Low Limit										

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3341.4	60684.	6295.9
Stddev	8.0	190.	21.2
%RSD	.23965	.31352	.33610

#1	3335.7	60549.	6280.9
#2	3347.0	60818.	6310.9

Sample Name: CCVL3312280 Acquired: 6/6/2015 1:36:33 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01142	.10359	.01589	.09794	.01067	.00089	.10298	.21749	.00476	.01072	.01031
Stddev	.00018	.00013	.00073	.00018	.00019	.00002	.00123	.00020	.00003	.00032	.00018
%RSD	1.5959	.12333	4.5703	.18608	1.7423	1.7011	1.1976	.09384	.71264	2.9382	1.7527

#1	.01129	.10350	.01641	.09807	.01053	.00088	.10385	.21763	.00478	.01094	.01018
#2	.01155	.10368	.01538	.09781	.01080	.00090	.10210	.21735	.00473	.01050	.01043

Check ?	Chk Pass										
Value											
Range											

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01414	.10286	3.4196	F .01396	.22915	.01127	.01846	1.1622	.04172	2.8051	.01128
Stddev	.00002	.00069	.0712	.00024	.00223	.00027	.00068	.0053	.00012	.0012	.00174
%RSD	.17184	.66952	2.0825	1.7221	.97326	2.4293	3.6927	.45900	.28790	.04183	15.422

#1	.01412	.10237	3.3692	.01379	.22758	.01146	.01798	1.1584	.04181	2.8059	.01251
#2	.01416	.10334	3.4699	.01413	.23073	.01107	.01894	1.1659	.04164	2.8043	.01005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass						
Value				.01000							
Range				30.000%							

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01573	.01024	F .02100	.47754	1.0219	.09407	.01027	F .02033	.01005	.01568	F -.00222
Stddev	.00030	.00187	.00047	.00696	.0149	.00022	.00010	.00011	.00012	.00197	.01343
%RSD	1.9039	18.281	2.2145	1.4569	1.4569	.23019	.95818	.51722	1.1813	12.583	604.58

#1	.01552	.00892	.02067	.47262	1.0114	.09422	.01020	.02025	.00997	.01428	.00727
#2	.01594	.01157	.02133	.48246	1.0325	.09392	.01034	.02040	.01013	.01707	-.01171

Check ?	None	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value			.01500					.01500			.06000
Range			30.000%					30.000%			-30.000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.01081	.02391	.01754
Stddev	.00008	.00041	.00021
%RSD	.75317	1.7313	1.2099

#1	.01075	.02362	.01769
#2	.01086	.02420	.01739

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3358.9	60702.	6320.2
Stddev	14.2	56.	9.9
%RSD	.42365	.09259	.15632

#1	3369.0	60742.	6327.1
#2	3348.9	60662.	6313.2

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00033	.02448	-.00143	.00100	.00026	-.00015	-.00177	.00653	-.00013
Stddev	.00012	.00108	.00238	.00095	.00030	.00003	.00051	.00431	.00000
%RSD	37.001	4.4011	165.91	94.894	113.46	22.314	29.124	65.953	1.0926

#1	.00042	.02524	.00025	.00033	.00048	-.00017	-.00140	.00349	-.00013
#2	.00024	.02371	-.00311	.00167	.00005	-.00013	-.00213	.00958	-.00013

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00023	.00291	-.00063	.31170	.21719	.00492	-.00087	.00324	.00037
Stddev	.00007	.00033	.00011	.00174	.01536	.00130	.00134	.00002	.00029
%RSD	31.071	11.236	18.035	.55756	7.0713	26.450	153.46	.49177	77.269

#1	.00018	.00314	-.00071	.31047	.22805	.00400	.00007	.00323	.00017
#2	.00028	.00268	-.00055	.31293	.20633	.00585	-.00182	.00325	.00057

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10370	.00042	-.00119	.00016	.01844	.00080	.00525	.00752	.01609
Stddev	.00565	.00043	.00029	.00124	.00281	.00267	.00822	.01834	.03925
%RSD	5.4524	103.45	24.341	790.16	15.233	335.66	156.50	243.90	243.90

#1	.09970	.00011	-.00139	-.00072	.01645	-.00109	.01107	-.00545	-.01166
#2	.10770	.00072	-.00098	.00103	.02042	.00269	-.00056	.02049	.04385

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	.00008	.00239	-.00020	.00225	-.01642	-.00003	.00847	.00322
Stddev	.00042	.00009	.00244	.00022	.00031	.02418	.00057	.00010	.00021
%RSD	330.51	122.70	101.89	111.10	13.778	147.26	1801.6	1.1793	6.4239

#1	.00017	.00001	.00411	-.00035	.00247	-.03351	-.00043	.00854	.00337
#2	-.00042	.00014	.00067	-.00004	.00204	.00068	.00037	.00840	.00307

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3378.3	61652.	6413.1
Stddev	2.7	247.	22.2
%RSD	.07855	.40090	.34610

#1	3376.4	61478.	6428.8
#2	3380.1	61827.	6397.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05456	1.8725	.93694	.98112	2.0853	.04769	F 1.9220	49.886	.09662
Stddev	.00088	.0509	.01541	.02129	.0024	.00003	.0423	.054	.00203
%RSD	1.6135	2.7205	1.6450	2.1699	.11516	.07111	2.2000	.10751	2.1009

#1	.05518	1.9085	.94784	.99617	2.0836	.04767	1.9519	49.848	.09805
#2	.05394	1.8364	.92604	.96607	2.0870	.04771	1.8921	49.924	.09518

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49652	W .18800	.25071	.94866	52.404	1.0068	53.308	.53204	.96226
Stddev	.01349	.00175	.00055	.00557	.099	.0005	.203	.00085	.02507
%RSD	2.7170	.93128	.21902	.58749	.18844	.04646	.38076	.16049	2.6049

#1	.50605	.18924	.25032	.95260	52.474	1.0072	53.164	.53144	.97999
#2	.48698	.18676	.25110	.94472	52.334	1.0065	53.451	.53264	.94454

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	54.368	.49414	W 9.8872	.50502	1.8411	.48873	1.8612	9.6927	20.742
Stddev	1.075	.01261	.2581	.01245	.0413	.01374	.0359	.1873	.401
%RSD	1.9779	2.5528	2.6100	2.4643	2.2404	2.8113	1.9295	1.9319	1.9319

#1	55.128	.50306	10.070	.51382	1.8703	.49845	1.8866	9.8251	21.026
#2	53.607	.48522	9.7048	.49622	1.8120	.47902	1.8358	9.5602	20.459

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8514	.97273	1.0463	1.0496	1.8350	2.1680	.54157	.51937	.52785
Stddev	.0537	.00038	.0026	.0008	.0412	.0482	.00092	.00355	.01059
%RSD	2.8979	.03944	.25083	.07258	2.2443	2.2240	.16976	.68330	2.0061

#1	1.8893	.97301	1.0444	1.0491	1.8641	2.2020	.54222	.51686	.53533
#2	1.8134	.97246	1.0481	1.0502	1.8058	2.1339	.54092	.52188	.52036

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3226.0	58167.	6305.4
Stddev	68.2	213.	4.0
%RSD	2.1151	.36608	.06277

#1	3177.7	58318.	6308.2
#2	3274.2	58016.	6302.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05278	1.8154	.90661	.95505	2.0180	.04559	F 1.8666	48.379	.09453
Stddev	.00046	.0065	.00172	.00106	.0050	.00031	.0033	.123	.00022
%RSD	.87235	.35880	.18985	.11107	.24678	.67879	.17748	.25523	.23744

#1	.05311	1.8108	.90539	.95430	2.0145	.04581	1.8643	48.291	.09469
#2	.05245	1.8200	.90783	.95580	2.0215	.04537	1.8690	48.466	.09437

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48557	W .18497	.24270	.94082	50.673	.97075	51.834	.51612	.93012
Stddev	.00086	.00029	.00069	.00539	.235	.00269	.066	.00031	.00181
%RSD	.17609	.15830	.28610	.57307	.46286	.27760	.12636	.06078	.19493

#1	.48496	.18477	.24319	.94463	50.507	.96885	51.880	.51635	.92884
#2	.48617	.18518	.24221	.93700	50.839	.97266	51.788	.51590	.93140

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.866	.48484	W 9.6675	.49679	1.7971	.48030	1.8427	9.1991	19.686
Stddev	.084	.00044	.0297	.00115	.0209	.00214	.0257	.0289	.062
%RSD	.16123	.09053	.30739	.23179	1.1615	.44634	1.3954	.31395	.31395

#1	51.925	.48453	9.6465	.49597	1.7823	.47878	1.8245	9.2195	19.730
#2	51.806	.48516	9.6885	.49760	1.8118	.48181	1.8609	9.1787	19.642

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8101	.93351	1.0143	1.0130	1.8014	2.0748	.52823	.50030	.49878
Stddev	.0098	.00314	.0049	.0002	.0111	.0163	.00132	.00295	.00079
%RSD	.54381	.33635	.48006	.01850	.61386	.78463	.25064	.59002	.15923

#1	1.8031	.93129	1.0108	1.0129	1.7935	2.0863	.52730	.49821	.49934
#2	1.8170	.93573	1.0177	1.0132	1.8092	2.0632	.52917	.50238	.49822

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3268.7	58887.	6401.3
Stddev	6.7	73.	6.6
%RSD	.20545	.12344	.10297

#1	3273.5	58938.	6406.0
#2	3264.0	58836.	6396.7

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00086	.00719	.00587	3.2512	.09149	-.00024	-.00710	458.52	-.00036
Stddev	.00033	.00107	.00541	.0275	.00024	.00011	.00146	4.41	.00004
%RSD	38.468	14.852	92.181	.84685	.26708	44.921	20.513	.96184	11.724

#1	.00109	.00643	.00970	3.2707	.09166	-.00016	-.00813	455.40	-.00039
#2	.00063	.00794	.00204	3.2317	.09132	-.00031	-.00607	461.64	-.00033

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00182	.00160	.00069	.54746	20.785	.20477	150.09	2.9809	.03765
Stddev	.00004	.00028	.00041	.00228	.080	.00102	.66	.0231	.00085
%RSD	2.3333	17.419	59.201	.41622	.38652	.49963	.43864	.77620	2.2451

#1	.00185	.00140	.00040	.54907	20.728	.20404	150.56	2.9973	.03706
#2	.00179	.00180	.00098	.54584	20.842	.20549	149.63	2.9646	.03825

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	307.07	.01822	.32999	.00792	F 289.71	.01164	.01132	31.961	68.396
Stddev	.76	.00024	.00333	.00050	1.76	.00056	.00195	.540	1.156
%RSD	.24845	1.2902	1.0078	6.3588	.60863	4.8153	17.218	1.6899	1.6899

#1	306.53	.01806	.33235	.00828	290.95	.01204	.01269	32.343	69.213
#2	307.61	.01839	.32764	.00757	288.46	.01125	.00994	31.579	67.578

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00145	4.4883	.00248	.00076	W -.01328	W -.05562	.00142	.00144	.00280
Stddev	.00169	.0162	.00207	.00028	.00380	.02155	.00023	.00018	.00044
%RSD	116.59	.36089	83.208	37.365	28.623	38.748	16.206	12.349	15.724

#1	-.00265	4.4768	.00102	.00056	-.01596	-.04038	.00125	.00132	.00249
#2	-.00025	4.4997	.00395	.00096	-.01059	-.07086	.00158	.00157	.00311

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000	45.000			
Low Limit					-.01000	-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3004.2	53979.	6256.7
Stddev	1.2	509.	44.7
%RSD	.03910	.94383	.71372

#1	3005.0	53619.	6288.3
#2	3003.4	54339.	6225.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00065	-.00093	-.00877	.48690	.01874	-.00025	-.00580	445.53	.00000
Stddev	.00017	.00024	.00091	.01865	.00018	.00007	.00044	9.96	.00021
%RSD	25.490	25.358	10.433	3.8312	.97468	27.743	7.5275	2.2345	5202.9

#1	.00053	-.00109	-.00941	.50009	.01887	-.00020	-.00549	438.49	.00015
#2	.00077	-.00076	-.00812	.47371	.01861	-.00029	-.00610	452.57	-.00014

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00033	.00119	.00005	1.4507	7.8471	.16257	134.62	.48546	.09807
Stddev	.00007	.00010	.00041	.0052	.0109	.00073	4.49	.01541	.00342
%RSD	21.152	8.7017	867.35	.35588	.13900	.45077	3.3353	3.1745	3.4827

#1	-.00028	.00112	-.00024	1.4470	7.8548	.16206	137.80	.49636	.10049
#2	-.00038	.00126	.00034	1.4543	7.8394	.16309	131.45	.47456	.09566

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	193.03	.01428	.13996	.00906	F 332.25	.01622	.00704	20.575	44.031
Stddev	2.22	.00061	.00011	.00120	12.96	.00088	.00197	.014	.030
%RSD	1.1515	4.2781	.07532	13.298	3.9013	5.3969	27.927	.06703	.06703

#1	194.60	.01471	.13989	.00821	341.41	.01560	.00844	20.585	44.052
#2	191.46	.01384	.14003	.00991	323.08	.01684	.00565	20.566	44.011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00121	4.2825	.00273	-.00013	W -.01053	-.01467	.00158	.00101	.00043
Stddev	.00020	.0447	.00055	.00003	.00065	.04291	.00096	.00027	.00012
%RSD	16.367	1.0434	20.285	20.988	6.2167	292.55	60.862	26.279	27.993

#1	.00107	4.3141	.00234	-.00015	-.01099	-.04501	.00090	.00083	.00052
#2	.00135	4.2509	.00312	-.00011	-.01007	.01568	.00226	.00120	.00035

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000				
Low Limit					-.01000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2827.6	52912.	5933.7
Stddev	127.1	800.	102.9
%RSD	4.4955	1.5126	1.7346

#1	2917.5	52346.	6006.5
#2	2737.7	53478.	5860.9

Sample Name: 280-70043-D-3-C Acquired: 6/6/2015 1:51:57 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280385 6010b

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00151	-.00090	-.00327	.51011	.01902	-.00030	-.00387	452.58	-.00015
Stddev	.00011	.00084	.00379	.00063	.00003	.00008	.00233	2.47	.00027
%RSD	7.2486	93.066	115.78	.12417	.17539	27.901	60.161	.54670	175.72

#1	.00159	-.00149	-.00595	.50966	.01899	-.00036	-.00222	450.83	.00004
#2	.00143	-.00031	-.00059	.51056	.01904	-.00024	-.00552	454.33	-.00035

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00019	.00129	.00034	1.4600	8.0335	.16250	139.03	.50162	.10273
Stddev	.00009	.00011	.00056	.0314	.1511	.00166	.31	.00093	.00069
%RSD	46.941	8.7477	167.27	2.1486	1.8805	1.0191	.22215	.18581	.67090

#1	-.00025	.00136	.00073	1.4378	7.9267	.16133	138.81	.50096	.10225
#2	-.00012	.00121	-.00006	1.4821	8.1403	.16367	139.25	.50228	.10322

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	195.21	.01467	.14232	.01052	F 350.91	.01215	.01221	20.716	44.332
Stddev	.64	.00012	.00050	.00031	2.13	.00109	.00127	.397	.849
%RSD	.32946	.79055	.35174	2.9715	.60604	8.9580	10.438	1.9161	1.9161

#1	194.76	.01475	.14268	.01074	349.41	.01292	.01311	20.435	43.732
#2	195.67	.01459	.14197	.01030	352.42	.01138	.01131	20.997	44.933

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit 200.00
 Low Limit -20000

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00067	4.3373	.00415	-.00049	W -.01240	-.03271	.00194	.00094	.00033
Stddev	.00057	.0199	.00066	.00029	.00029	.00545	.00071	.00075	.00109
%RSD	85.839	.45965	15.948	58.921	2.3521	16.672	36.741	79.267	335.03

#1	-.00026	4.3232	.00369	-.00029	-.01219	-.03657	.00245	.00042	-.00045
#2	-.00107	4.3514	.00462	-.00069	-.01260	-.02886	.00144	.00147	.00110

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Warn Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit 5.0000
 Low Limit -0.1000

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2906.5	52141.	5842.3
Stddev	10.2	300.	39.0
%RSD	.35126	.57457	.66682

#1	2913.7	52353.	5869.9
#2	2899.3	51929.	5814.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00140	-.00112	-.00737	.36703	.02696	-.00022	-.00219	W 885.85	-.00002
Stddev	.00070	.00037	.00146	.01217	.00047	.00004	.00089	2.55	.00007
%RSD	49.700	33.205	19.817	3.3153	1.7439	20.184	40.488	.28752	305.89

#1	.00091	-.00086	-.00841	.37564	.02663	-.00025	-.00156	884.05	-.00008
#2	.00190	-.00138	-.00634	.35843	.02729	-.00019	-.00281	887.65	.00003

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit								500.00	
Low Limit								-.05000	

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01508	.00085	.00004	.20673	19.681	.12552	113.68	3.7460	.02135
Stddev	.00006	.00024	.00020	.00690	.174	.00060	.50	.0157	.00026
%RSD	.36944	28.606	497.88	3.3391	.88658	.48167	.44355	.41956	1.2106

#1	.01512	.00102	.00018	.20185	19.558	.12595	114.03	3.7571	.02153
#2	.01504	.00068	-.00010	.21161	19.804	.12510	113.32	3.7349	.02116

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	85.558	.19956	.06417	.00821	F 386.46	.01950	.01494	16.405	35.107
Stddev	.384	.00544	.00025	.00211	14.90	.00231	.00349	.101	.216
%RSD	.44922	2.7276	.39421	25.644	3.8562	11.856	23.363	.61484	.61484

#1	85.830	.20341	.06435	.00970	397.00	.02113	.01741	16.334	34.955
#2	85.286	.19571	.06399	.00672	375.92	.01786	.01247	16.477	35.260

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					200.00				
Low Limit					-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00113	3.1084	.00120	-.00083	W -.01415	.08183	-.00103	.00961	.00019
Stddev	.00030	.0284	.00022	.00009	.00199	.02739	.00001	.00020	.00109
%RSD	26.626	.91384	18.260	10.458	14.093	33.472	.95096	2.1328	559.03

#1	-.00092	3.0883	.00105	-.00077	-.01556	.06246	-.00104	.00975	.00096
#2	-.00134	3.1285	.00136	-.00089	-.01274	.10119	-.00102	.00946	-.00057

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000				
Low Limit					-.01000				

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2805.8	51285.	5772.5
Stddev	24.3	189.	174.4
%RSD	.86589	.36929	3.0220

#1	2823.0	51151.	5895.9
#2	2788.7	51419.	5649.2

Sample Name: CCVH-3304613 Acquired: 6/6/2015 1:57:21 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .01926	46.706	k -.00109	k .00325	k -.00024	k .00009	kF .81644	k .16329	k -.00212	k .00080	k .00086
Stddev	.00017	.144	.00255	.00079	.00006	.00001	.00190	.02580	.00015	.00054	.00002
%RSD	.86239	.30891	234.50	24.158	23.528	14.878	.23262	15.803	6.9840	67.321	2.3799

#1	k .01938	46.808	k .00072	k .00270	k -.00028	k .00008	k .81510	k .18154	k -.00202	k .00118	k .00085
#2	k .01914	46.604	k -.00290	k .00381	k -.00020	k .00009	k .81778	k .14504	k -.00223	k .00042	k .00088

Check ?	None	Chk Pass	None	None	None	None	Chk Fail	None	None	None	None
Value							1.0000				
Range							-10.490%				

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .00657	kF 44.506	.49194	.00656	k -.02910	k -.00024	k -.00164	233.76	k .00099	k .00577	k .01019
Stddev	.00054	.070	.00798	.00048	.00655	.00010	.00012	.47	.00009	.00009	.00076
%RSD	8.1843	.15748	1.6220	7.3588	22.503	41.216	7.0213	.20040	8.6123	1.5332	7.4424

#1	k .00619	k 44.556	.48630	.00690	k -.02447	k -.00030	k -.00156	234.09	k .00093	k .00571	k .00965
#2	k .00695	k 44.457	.49758	.00622	k -.03373	k -.00017	k -.00172	233.43	k .00105	k .00584	k .01072

Check ?	None	Chk Fail	None	None	None	None	None	Chk Pass	None	None	None
Value		50.000									
Range		-10.490%									

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	kF 4.1086	k -.02983	k -.00804	k -.00635	k -.01359	k -.00050	.00107	k 5.0876	k .01467	k .00231	k 10.018
Stddev	.0122	.00098	.00526	.00195	.00417	.00106	.00014	.0182	.00013	.00013	.016
%RSD	.29611	3.2830	65.411	30.669	30.669	210.84	13.365	.35765	.91632	5.6577	.16099

#1	k 4.1000	k -.02914	k -.00432	k -.00773	k -.01653	k .00025	.00117	k 5.1005	k .01457	k .00221	k 10.030
#2	k 4.1172	k -.03052	k -.01176	k -.00497	k -.01064	k -.00125	.00097	k 5.0748	k .01476	k .00240	k 10.007

Check ?	Chk Fail	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	5.0000										
Range	-10.490%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	k -.00266	k .00095	k .30675
Stddev	.00005	.00040	.00179
%RSD	1.9984	42.093	.58250

#1	k -.00262	k .00067	k .30801
#2	k -.00269	k .00123	k .30549

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3050.2	53626.	5759.1
Stddev	3.6	284.	63.6
%RSD	.11850	.52956	1.1037

#1	3052.7	53425.	5804.1
#2	3047.6	53826.	5714.2

Sample Name: CCV-3305006 Acquired: 6/6/2015 1:59:55 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49522	.46506	F .86522	.45205	.47886	F .43694	-.00234	4.7822	F .44645	.48495	F .43233
Stddev	.00006	.00081	.01550	.00045	.01054	.00879	.00087	.0988	.00175	.00125	.00029
%RSD	.01181	.17368	1.7910	.09949	2.2012	2.0109	37.051	2.0662	.39172	.25787	.06608

#1	.49526	.46563	.87618	.45173	.47141	.43073	-.00296	4.7124	.44769	.48584	.43213
#2	.49518	.46449	.85427	.45237	.48632	.44316	-.00173	4.8521	.44521	.48407	.43254

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass	Chk Fail	Chk Pass	Chk Fail
Value			1.0000			.50000			.50000		.50000
Range			-10.490%			-10.490%			-10.490%		-10.490%

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.45157	F 2.1968	48.687	.93782	19.907	.50001	F .43530	4.9478	.48549	W .89821	.95282
Stddev	.00142	.0357	.984	.01407	.034	.00123	.00113	.1052	.00016	.00336	.00180
%RSD	.31524	1.6267	2.0216	1.5005	.17082	.24674	.26054	2.1264	.03319	.37360	.18867

#1	.45056	2.1715	47.991	.92787	19.931	.50088	.43610	4.8734	.48561	.89584	.95409
#2	.45258	2.2220	49.383	.94777	19.883	.49913	.43450	5.0222	.48538	.90059	.95155

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Warn	Chk Pass
Value		2.5000					.50000			1.0000	
Range		-10.490%					-10.490%			-10.000%	

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04420	F .87339	F .84982	4.5047	9.6402	F .87429	F .44738	.00182	.49354	F .89122	-.03369
Stddev	.00326	.00117	.00380	.0792	.1695	.00360	.00954	.00293	.00123	.00544	.03024
%RSD	7.3858	.13365	.44700	1.7586	1.7586	.41155	2.1314	160.51	.24922	.60999	89.751

#1	.04650	.87422	.85251	4.4487	9.5203	.87683	.44063	-.00025	.49441	.89507	-.01231
#2	.04189	.87257	.84713	4.5608	9.7600	.87174	.45412	.00389	.49267	.88738	-.05507

Check ?	None	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Fail	None	Chk Pass	Chk Fail	None
Value		1.0000	1.0000			1.0000	.50000			1.0000	
Range		-10.490%	-10.490%			-10.490%	-10.490%			-10.490%	

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.50680	.50459	.46949
Stddev	.00251	.00062	.00528
%RSD	.49472	.12356	1.1256

#1	.50857	.50415	.46575
#2	.50503	.50503	.47322

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3100.5	55502.	5724.7
Stddev	6.1	67.	126.2
%RSD	.19781	.12114	2.2047

#1	3096.2	55454.	5814.0
#2	3104.9	55550.	5635.5

Sample Name: CCB Acquired: 6/6/2015 2:02:25 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00063	.00006	.00163	.00260	-.00009	-.00001	-.00026	.01408	-.00031	.00021	.00035
Stddev	.00040	.00000	.00180	.00115	.00017	.00004	.00257	.00209	.00018	.00003	.00016
%RSD	63.199	4.7863	110.69	44.163	190.94	608.81	1009.7	14.867	56.865	13.563	44.759

#1	.00092	.00006	.00290	.00179	.00003	.00002	.00157	.01260	-.00019	.00019	.00046
#2	.00035	.00005	.00035	.00341	-.00021	-.00004	-.00208	.01556	-.00044	.00023	.00024

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00091	.00353	.36335	.00510	.00514	.00016	-.00003	.15143	.00004	.00134	-.00014
Stddev	.00007	.00108	.02881	.00052	.00387	.00005	.00002	.00359	.00031	.00101	.00016
%RSD	8.1734	30.619	7.9284	10.273	75.190	33.313	62.140	2.3686	810.57	74.932	112.01

#1	-.00086	.00429	.34298	.00547	.00241	.00013	-.00004	.15397	-.00018	.00206	-.00026
#2	-.00097	.00276	.38372	.00473	.00788	.00020	-.00002	.14889	.00026	.00063	-.00003

Check ?	Chk Pass										
High Limit											
Low Limit											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03593	.00037	F .00599	-.01426	-.03051	-.00106	.00034	.00627	-.00039	.00222	F -.05732
Stddev	.00037	.00216	.00205	.01302	.02786	.00025	.00002	.00222	.00002	.00061	.00146
%RSD	1.0170	576.82	34.241	91.336	91.336	23.996	7.0219	35.414	6.0700	27.661	2.5460

#1	.03567	-.00115	.00454	-.02346	-.05021	-.00123	.00033	.00784	-.00037	.00179	-.05836
#2	.03619	.00190	.00744	-.00505	-.01080	-.00088	.00036	.00470	-.00041	.00266	-.05629

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail						
High Limit			.00500								.05000
Low Limit			-.00500								-.05000

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00004	.00039	.00014
Stddev	.00003	.00024	.00003
%RSD	75.086	60.434	22.175

#1	.00002	.00056	.00016
#2	.00006	.00022	.00012

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3102.3	56348.	5716.4
Stddev	11.8	117.	114.6
%RSD	.37982	.20700	2.0041

#1	3094.0	56266.	5797.4
#2	3110.7	56431.	5635.4

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01090	.09622	.01387	.09167	.00982	.00079	.09470	.20356	.00423	.01002	.00905	.01261
Stddev	.00048	.00102	.00188	.00135	.00051	.00006	.00118	.00216	.00023	.00043	.00057	.00025
%RSD	4.3994	1.0563	13.548	1.4701	5.2110	7.3215	1.2463	1.0603	5.3892	4.2655	6.3131	1.9459

#1	.01056	.09550	.01254	.09072	.00946	.00083	.09387	.20203	.00439	.00972	.00865	.01243
#2	.01124	.09694	.01520	.09262	.01018	.00074	.09553	.20508	.00407	.01032	.00946	.01278

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08996	3.2824	F .01606	.20951	.01060	.01742	1.1044	.03939	2.5885	.00848	.02508	.00841
Stddev	.00167	.0240	.00067	.00524	.00019	.00016	.0012	.00054	.0367	.00011	.00219	.00207
%RSD	1.8588	.73173	4.1875	2.5021	1.7538	.90346	.11145	1.3687	1.4198	1.2597	8.7181	24.586

#1	.09114	3.2994	.01654	.20581	.01073	.01753	1.1052	.03901	2.5625	.00856	.02354	.00987
#2	.08878	3.2654	.01559	.21322	.01047	.01731	1.1035	.03977	2.6144	.00841	.02663	.00695

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01768	.44084	.94339	.08769	.00942	F .01993	.00932	.01710	F .02165	.01018	.02231	.01613
Stddev	.00090	.01298	.02777	.00257	.00012	.00178	.00021	.00174	.04417	.00022	.00010	.00131
%RSD	5.0944	2.9433	2.9433	2.9288	1.2526	8.9157	2.1992	10.166	203.99	2.1327	.44429	8.1159

#1	.01704	.43166	.92376	.08587	.00934	.01868	.00947	.01587	.05289	.01034	.02238	.01520
#2	.01832	.45001	.96303	.08950	.00951	.02119	.00918	.01833	-.00958	.01003	.02224	.01706

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass				
Value						.01500			.06000			
Range						30.000%			-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3122.6	56333.	5740.0
Stddev	1.9	33.	2.4
%RSD	.05970	.05906	.04142

#1	3121.3	56356.	5741.6
#2	3123.9	56309.	5738.3

Sample Name: 280-70043-H-5-C Acquired: 6/6/2015 2:07:26 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280385 6010b

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00117	21.788	1.8067	.65247	.11609	.00112	-.00552	234.97	-.00280
Stddev	.00038	.010	.0111	.00476	.00047	.00003	.00108	.50	.00028
%RSD	32.622	.04448	.61274	.72928	.40706	3.0727	19.491	.21387	10.143

#1	.00143	21.781	1.8145	.65583	.11642	.00115	-.00628	235.32	-.00300
#2	.00090	21.795	1.7988	.64910	.11575	.00110	-.00476	234.61	-.00260

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02640	F 1.0813	.00232	117.09	61.577	.04597	39.029	1.4085	.01597
Stddev	.00001	.0170	.00009	.42	.149	.00382	.078	.0034	.00015
%RSD	.03842	1.5683	3.9004	.36019	.24275	8.3194	.20060	.24284	.92495

#1	.02640	1.0932	.00225	117.38	61.682	.04867	38.973	1.4060	.01607
#2	.02639	1.0693	.00238	116.79	61.471	.04326	39.084	1.4109	.01586

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		1.0000							
Low Limit		-.02000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	98.129	.53935	W 6.4842	.01143	F 816.89	1.1728	.01217	22.727	48.636
Stddev	.059	.00023	.0433	.00010	6.79	.0061	.00118	.089	.190
%RSD	.05979	.04257	.66726	.87939	.83108	.51710	9.7124	.39150	.39150

#1	98.171	.53951	6.5148	.01136	821.69	1.1771	.01301	22.790	48.771
#2	98.088	.53918	6.4536	.01150	812.09	1.1685	.01134	22.664	48.502

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			2.0000		200.00				
Low Limit			-1.0000		-20000				

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00954	1.2943	.02146	.04594	-.00872	F -.10269	.16754	.22207	.00033
Stddev	.00010	.0055	.00015	.00078	.00004	.01632	.00039	.00124	.00146
%RSD	1.0291	.42790	.68681	1.7000	.43782	15.890	.23366	.55785	435.92

#1	.00947	1.2982	.02136	.04539	-.00869	-.09115	.16726	.22120	.00136
#2	.00961	1.2904	.02157	.04650	-.00875	-.11423	.16781	.22295	-.00070

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass				
High Limit						50.000			
Low Limit						-10000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3082.5	55310.	5976.2
Stddev	53.7	97.	8.0
%RSD	1.7435	.17576	.13344

#1	3120.5	55378.	5970.5
#2	3044.5	55241.	5981.8

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00134	.08851	.04916	W 44.014	4.2257	-0.0025	-0.00279	334.78	-0.0047
Stddev	.00065	.00017	.00077	.145	.0397	.00008	.00058	3.31	.00001
%RSD	48.331	.19072	1.5584	.33052	.93915	32.176	20.902	.98890	1.2036

#1	.00180	.08863	.04970	44.117	4.2537	-0.0019	-0.00320	337.12	-0.0048
#2	.00088	.08839	.04862	43.912	4.1976	-0.00030	-0.00237	332.44	-0.0047

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				10.000					
Low Limit				-.01000					

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00732	.01847	.00113	6.7879	W 419.74	.18617	251.72	.27527	.00573
Stddev	.00031	.00060	.00009	.0374	5.38	.00087	.59	.00036	.00035
%RSD	4.2895	3.2637	8.1440	.55115	1.2815	.46886	.23338	.12984	6.1460

#1	.00710	.01805	.00106	6.8144	423.55	.18679	252.13	.27552	.00548
#2	.00754	.01890	.00119	6.7615	415.94	.18556	251.30	.27501	.00598

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					100.00				
Low Limit					-50000				

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 2762.2	.13733	W 2.9737	.01086	62.306	.04223	.01539	30.754	65.813
Stddev	25.9	.00007	.0065	.00121	.166	.00176	.00885	.074	.158
%RSD	.93695	.05236	.21970	11.134	.26565	4.1666	57.537	.23941	.23941

#1	2780.5	.13738	2.9784	.01000	62.423	.04347	.02165	30.806	65.924
#2	2743.9	.13728	2.9691	.01171	62.189	.04098	.00913	30.702	65.702

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass					
High Limit	500.00		2.0000						
Low Limit	11.000		-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00055	W 6.8740	.00543	.01874	W -.01049	W -.09422	.00703	.01144	.00039
Stddev	.00099	.1644	.00167	.00017	.00019	.00408	.00025	.00064	.00073
%RSD	178.24	2.3916	30.697	.90769	1.8233	4.3334	3.5177	5.5708	188.09

#1	.00125	6.9903	.00425	.01862	-0.01036	-.09133	.00686	.01099	.00091
#2	-.00014	6.7578	.00661	.01886	-0.01063	-.09710	.00721	.01189	-.00013

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit		5.0000			5.0000	45.000			
Low Limit		-.01000			-.01000	-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2551.5	43971.	5372.5
Stddev	35.0	22.	11.3
%RSD	1.3735	.04993	.20990

#1	2526.7	43956.	5380.5
#2	2576.3	43987.	5364.6

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00091	.01886	.01064	9.3177	.83196	.00003	-.00418	67.744	-.00027
Stddev	.00033	.00035	.00129	.0179	.00702	.00011	.00214	.568	.00004
%RSD	36.290	1.8424	12.119	.19228	.84324	381.31	51.125	.83877	15.024

#1	.00067	.01861	.01155	9.3304	.83692	-.00005	-.00267	68.146	-.00030
#2	.00114	.01910	.00973	9.3050	.82700	.00010	-.00570	67.342	-.00024

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00112	.00497	.00005	1.4168	82.431	.04323	49.424	.05541	.00008
Stddev	.00008	.00025	.00018	.0019	.482	.00184	.187	.00048	.00006
%RSD	7.1231	5.0996	355.50	.13457	.58433	4.2582	.37842	.86717	74.830

#1	.00107	.00515	.00018	1.4181	82.771	.04453	49.292	.05507	.00012
#2	.00118	.00480	-.00008	1.4154	82.090	.04192	49.556	.05575	.00004

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 544.93	.02915	.58157	.00968	12.279	.00663	.00935	6.0183	12.879
Stddev	4.38	.00032	.00478	.00077	.121	.00153	.00451	.0378	.081
%RSD	.80304	1.1082	.82210	7.9248	.98593	23.113	48.255	.62744	.62744

#1	548.03	.02938	.57819	.01022	12.194	.00771	.00616	5.9916	12.822
#2	541.84	.02893	.58495	.00914	12.365	.00554	.01254	6.0450	12.936

Check ?	Chk Warn	Chk Pass							
High Limit	500.00								
Low Limit	11.000								

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00368	1.3483	.00299	.00350	-.00071	W -.05384	.00045	.00572	-.00180
Stddev	.00037	.0121	.00035	.00015	.00080	.04231	.00061	.00067	.00011
%RSD	10.050	.89946	11.721	4.3652	112.84	78.589	135.35	11.690	6.2159

#1	.00394	1.3569	.00275	.00361	-.00014	-.02392	.00088	.00525	-.00172
#2	.00342	1.3398	.00324	.00339	-.00128	-.08376	.00002	.00619	-.00188

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2846.7	50286.	5506.3
Stddev	7.5	199.	61.9
%RSD	.26184	.39584	1.1234

#1	2851.9	50427.	5462.5
#2	2841.4	50145.	5550.0

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05624	1.7572	W 2.9875	.94844	W 45.073	6.1282	.04207	F 1.6772	368.75
Stddev	.00096	.0053	.0431	.00488	.005	.0127	.00042	.0025	9.67
%RSD	1.7050	.30128	1.4433	.51493	.01018	.20682	1.0018	.14979	2.6236

#1	.05556	1.7609	3.0180	.94499	45.070	6.1372	.04177	1.6789	375.59
#2	.05692	1.7535	2.9570	.95189	45.076	6.1192	.04237	1.6754	361.91

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00		10.000			.10000	
Low Limit			3.2000		-.01000			-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09194	.43966	W .15505	.22844	7.4534	W 464.00	1.1540	296.80	.75766
Stddev	.00011	.00180	.00063	.00303	.0488	2.48	.0001	1.57	.00279
%RSD	.11709	.40944	.40865	1.3276	.65481	.53453	.01056	.52781	.36768

#1	.09202	.44093	.15550	.23058	7.4189	465.75	1.1540	297.90	.75963
#2	.09187	.43838	.15460	.22630	7.4879	462.25	1.1541	295.69	.75569

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit			.10000			100.00			
Low Limit			-.01000			-.50000			

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.86824	W 2800.3	.56130	W 12.554	.42248	64.511	.46098	1.7371	37.576
Stddev	.00608	4.8	.00444	.054	.00346	.026	.00671	.0169	.204
%RSD	.69983	.16985	.79130	.43183	.81932	.04069	1.4550	.97326	.54370

#1	.87254	2803.7	.56444	12.592	.42493	64.493	.46572	1.7490	37.432
#2	.86394	2796.9	.55816	12.515	.42003	64.530	.45624	1.7251	37.721

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass				
High Limit		500.00		2.0000					
Low Limit		11.000		-1.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	80.414	1.5607	W 7.5239	.97198	.99726	1.3493	1.8112	.52161	.50245
Stddev	.437	.0159	.0725	.00712	.00495	.0210	.0064	.00164	.00221
%RSD	.54370	1.0185	.96403	.73264	.49618	1.5529	.35391	.31352	.44023

#1	80.104	1.5719	7.4726	.97702	1.0008	1.3641	1.8067	.52276	.50401
#2	80.723	1.5494	7.5752	.96695	.99376	1.3344	1.8158	.52045	.50088

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			5.0000						
Low Limit			-.01000						

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.47255
Stddev	.00201
%RSD	.42558

#1	.47397
#2	.47113

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-70099-AA-1-E MS Acquired: 6/6/2015 2:16:31 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 280385 6010b

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2603.9	44717.	5403.8
Stddev	5.9	230.	129.1
%RSD	.22656	.51373	2.3897
#1	2599.7	44879.	5312.5
#2	2608.0	44554.	5495.1

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05760	1.8100	W 2.9301	.99312	W 47.191	6.3121	.04312	F 1.7438	378.41
Stddev	.00021	.0106	.0378	.00821	.284	.0737	.00017	.0192	7.04
%RSD	.36333	.58711	1.2894	.82704	.60202	1.1673	.38864	1.1019	1.8593

#1	.05745	1.8025	2.9568	.99893	46.990	6.2600	.04300	1.7302	373.44
#2	.05774	1.8175	2.9034	.98731	47.392	6.3642	.04323	1.7574	383.39

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00		10.000			.10000	
Low Limit			3.2000		-.01000			-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09482	.45203	W .15928	.23675	7.6036	W 474.45	1.1937	304.73	.77688
Stddev	.00089	.00404	.00150	.00031	.0077	4.76	.0136	.28	.00169
%RSD	.93655	.89294	.94332	.12924	.10175	1.0036	1.1384	.09131	.21714

#1	.09419	.44918	.15822	.23697	7.5981	471.08	1.1841	304.93	.77807
#2	.09545	.45489	.16034	.23654	7.6091	477.82	1.2033	304.53	.77568

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit			.10000			100.00			
Low Limit			-.01000			-.50000			

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.89918	W 2893.0	.57594	W 12.982	.43453	68.211	.47334	1.7940	37.804
Stddev	.01087	33.9	.00551	.104	.00420	.596	.00075	.0295	.434
%RSD	1.2084	1.1706	.95724	.79768	.96750	.87342	.15898	1.6449	1.1484

#1	.89149	2869.1	.57204	12.909	.43155	67.790	.47280	1.7732	37.497
#2	.90686	2917.0	.57984	13.055	.43750	68.632	.47387	1.8149	38.111

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Warn	Chk Pass				
High Limit		500.00		2.0000					
Low Limit		11.000		-1.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	80.900	1.6141	W 7.8304	1.0021	1.0234	1.3861	1.8690	.53194	.51179
Stddev	.929	.0129	.1682	.0019	.0006	.0167	.0287	.00092	.00063
%RSD	1.1484	.79759	2.1475	.19112	.06200	1.2042	1.5370	.17264	.12347

#1	80.243	1.6050	7.7115	1.0034	1.0239	1.3743	1.8486	.53129	.51134
#2	81.557	1.6232	7.9493	1.0007	1.0230	1.3979	1.8893	.53259	.51224

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			5.0000						
Low Limit			-.01000						

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.48711
Stddev	.00072
%RSD	.14808

#1	.48762
#2	.48660

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-70099-AA-1-F MSD Acquired: 6/6/2015 2:20:17 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 280385 6010b

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2579.2	45242.	5557.2
Stddev	5.9	62.	29.8
%RSD	.22703	.13763	.53609
#1	2583.3	45198.	5578.3
#2	2575.0	45286.	5536.1

Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00306	48.589	-.00463	.11009	.00009	.00002	F .86574	.04568	-.00029	-.00124	.00063	-.00219
Stddev	.00063	.049	.00318	.00725	.00054	.00010	.00589	.00746	.00042	.00034	.00018	.00016
%RSD	20.686	.09983	68.558	6.5863	622.71	558.90	.68008	16.340	142.22	27.619	28.985	7.4168

#1	.00350	48.554	-.00239	.11522	.00047	-.00005	.86158	.05096	-.00059	-.00100	.00050	-.00208
#2	.00261	48.623	-.00688	.10496	-.00030	.00009	.86990	.04041	.00000	-.00149	.00076	-.00231

Check ?	None	Chk Pass	None	None	None	None	Chk Fail	None	None	None	None	None
Value							1.0000					
Range							-10.490%					

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	46.227	1.5215	.00889	-.00913	-.00155	-.00051	245.22	.00061	.00805	.00141	F 4.0689	-.00412
Stddev	.571	.1124	.00059	.00212	.00003	.00008	1.06	.00048	.00110	.00155	.0115	.00031
%RSD	1.2359	7.3902	6.6411	23.228	1.9980	16.499	.43111	78.665	13.685	109.71	.28259	7.4444

#1	46.631	1.6010	.00847	-.00763	-.00153	-.00057	245.97	.00094	.00883	.00251	4.0771	-.00390
#2	45.823	1.4420	.00930	-.01063	-.00157	-.00045	244.47	.00027	.00727	.00032	4.0608	-.00433

Check ?	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None	Chk Fail	None
Value											5.0000	
Range											-10.490%	

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00144	-.00357	-.00765	-.00349	.00069	4.9497	-.01636	.00440	10.096	.00307	.00058	.06478
Stddev	.00464	.01213	.02596	.00080	.00013	.0055	.00005	.00095	.214	.00062	.00008	.00785
%RSD	321.24	339.38	339.38	22.806	18.580	.11030	.29274	21.509	2.1184	20.144	13.616	12.121

#1	-.00184	.00500	.01071	-.00406	.00060	4.9535	-.01633	.00373	10.248	.00264	.00064	.07034
#2	.00472	-.01215	-.02601	-.00293	.00079	4.9458	-.01640	.00507	9.9451	.00351	.00053	.05923

Check ?	None	None	None	None	None	Chk Pass	None	None	Chk Pass	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2939.2	53145.	5414.1
Stddev	6.9	89.	45.0
%RSD	.23332	.16782	.83172

#1	2934.4	53208.	5445.9
#2	2944.1	53082.	5382.2

Sample Name: CCV-3305006 Acquired: 6/6/2015 2:26:41 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50687	.47439	F .87935	.53761	.49236	F .44421	-.00255	4.8829	.45552	.49334	F .41315
Stddev	.00152	.00230	.00117	.00182	.00408	.00305	.00003	.0434	.00124	.00069	.00234
%RSD	.29909	.48457	.13255	.33914	.82774	.68723	.98801	.88939	.27146	.13939	.56583

#1	.50580	.47277	.87853	.53632	.48948	.44205	-.00257	4.8522	.45465	.49286	.41480
#2	.50794	.47602	.88017	.53890	.49525	.44637	-.00254	4.9136	.45640	.49383	.41149

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value			1.0000			.50000					.50000
Range			-10.490%			-10.490%					-10.490%

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46104	F 2.7960	50.568	.96932	20.337	.52010	F .44471	F 5.6598	.49483	.90634	.96514
Stddev	.00045	.0240	.487	.00699	.020	.00114	.00231	.0184	.00144	.00003	.00216
%RSD	.09729	.85996	.96357	.72079	.09813	.22001	.51947	.32528	.29078	.00332	.22362

#1	.46073	2.7790	50.224	.96438	20.323	.52091	.44308	5.6468	.49381	.90636	.96362
#2	.46136	2.8130	50.913	.97426	20.351	.51929	.44635	5.6728	.49584	.90632	.96667

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value		2.5000					.50000	5.0000			
Range		10.490%					-10.490%	10.490%			

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02940	F .87556	F .85423	4.6672	9.9878	F .88266	.45723	.00232	.50820	W .89734	-.06928
Stddev	.00232	.00357	.00383	.0511	.1094	.00468	.00383	.00168	.00118	.00469	.01585
%RSD	7.9076	.40719	.44783	1.0953	1.0953	.53039	.83695	72.638	.23224	.52251	22.874

#1	.03104	.87304	.85152	4.6311	9.9105	.87935	.45453	.00351	.50904	.89402	-.08049
#2	.02776	.87808	.85693	4.7034	10.065	.88597	.45994	.00113	.50737	.90065	-.05808

Check ?	None	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass	Chk Warn	None
Value		1.0000	1.0000			1.0000				1.0000	
Range		-10.490%	-10.490%			-10.490%				-10.000%	

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.52318	.52234	.47657
Stddev	.00118	.00485	.00102
%RSD	.22637	.92917	.21418

#1	.52402	.51891	.47729
#2	.52234	.52577	.47585

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2904.8	52022.	5280.9
Stddev	27.8	370.	54.7
%RSD	.95758	.71030	1.0354

#1	2924.4	51761.	5319.5
#2	2885.1	52283.	5242.2

Sample Name: CCB Acquired: 6/6/2015 2:29:10 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00022	-.00054	.00205	W .06119	-.00018	-.00016	-.00139	.00144	-.00021	-.00009	.00040
Stddev	.00069	.00075	.00573	.00302	.00025	.00013	.00123	.00085	.00013	.00032	.00009
%RSD	308.99	139.60	280.04	4.9325	143.54	78.391	88.987	58.861	61.815	377.09	21.775

#1	-.00026	-.00107	.00610	.06332	-.00036	-.00025	-.00051	.00084	-.00030	-.00031	.00046
#2	.00071	-.00001	-.00201	.05905	.00000	-.00007	-.00226	.00203	-.00012	.00014	.00034

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass						
High Limit				.05000							
Low Limit				-.05000							

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00158	-.00018	F .79642	.00631	-.00508	.00011	-.00003	F .67609	-.00037	.00098	.00110
Stddev	.00044	.00194	.08984	.00171	.00043	.00003	.00016	.02153	.00064	.00433	.00029
%RSD	27.767	1065.3	11.280	27.052	8.4255	27.089	571.59	3.1850	173.98	443.04	25.826

#1	-.00189	-.00155	.85994	.00511	-.00538	.00013	.00009	.69132	-.00082	-.00209	.00090
#2	-.00127	.00119	.73289	.00752	-.00477	.00008	-.00014	.66086	.00009	.00404	.00131

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit			.50000					.50000			
Low Limit			-.50000					-.50000			

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03119	.00143	F .01138	.00803	.01718	-.00099	.00009	.00423	-.00036	.00273	-.03140
Stddev	.00232	.00028	.00219	.03093	.06620	.00046	.00007	.00007	.00029	.00098	.01454
%RSD	7.4380	19.395	19.239	385.29	385.29	45.757	74.731	1.6503	81.293	35.925	46.313

#1	.03283	.00163	.01293	-.01384	-.02963	-.00067	.00014	.00428	-.00056	.00204	-.02112
#2	.02955	.00123	.00984	.02990	.06399	-.00132	.00004	.00418	-.00015	.00343	-.04168

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass							
High Limit			.00500								
Low Limit			-.00500								

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00072	.00003	-.00216
Stddev	.00105	.00034	.00118
%RSD	144.89	979.65	54.660

#1	-.00002	-.00021	-.00133
#2	.00146	.00028	-.00300

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3014.2	53028.	5333.6
Stddev	86.3	263.	101.6
%RSD	2.8632	.49553	1.9056

#1	2953.2	52842.	5261.7
#2	3075.3	53214.	5405.5

Sample Name: CCVL3312280 Acquired: 6/6/2015 2:31:32 Type: QC

Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000

User: CRHOADES Prep Date: Custom ID2: Custom ID3:

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01058	.10007	.01560	F .15086	.00978	.00077	.09948	.21527	.00457	.01064	.00907	.01369
Stddev	.00061	.00019	.00405	.00025	.00039	.00021	.00114	.00422	.00023	.00028	.00007	.00073
%RSD	5.8130	.19378	25.961	.16897	3.9797	27.607	1.1415	1.9618	4.9471	2.6008	.77323	5.3290

#1	.01101	.09994	.01846	.15105	.00950	.00092	.10028	.21826	.00473	.01044	.00912	.01421
#2	.01014	.10021	.01273	.15068	.01005	.00062	.09868	.21229	.00441	.01083	.00902	.01318

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass							
Value				.10000								
Range				30.000%								

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09379	3.8387	F .01667	.22370	.01120	.01794	F 1.6479	.04200	2.6964	.00963	.02863	.00998
Stddev	.00010	.0280	.00150	.00064	.00012	.00017	.0152	.00063	.0155	.00041	.00076	.00023
%RSD	.10662	.72870	9.0259	.28455	1.0845	.92229	.92436	1.4880	.57619	4.2566	2.6679	2.3260

#1	.09372	3.8189	.01773	.22325	.01111	.01782	1.6586	.04156	2.6854	.00992	.02917	.01014
#2	.09386	3.8584	.01560	.22415	.01129	.01806	1.6371	.04245	2.7074	.00934	.02809	.00981

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value			.01000				1.0000					
Range			30.000%				30.000%					

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01916	4.6543	.99601	.09253	.00996	F .02246	.00982	.01676	F .01328	.01064	.02494	.01207
Stddev	.00127	.02385	.05103	.00268	.00022	.00253	.00010	.00141	.04017	.00060	.00022	.00023
%RSD	6.6100	5.1234	5.1234	2.8989	2.2155	11.276	1.0253	8.4025	302.43	5.6470	.89414	1.9180

#1	.01826	.44856	.95993	.09064	.00980	.02067	.00989	.01576	.04169	.01106	.02478	.01191
#2	.02005	.48229	1.0321	.09443	.01011	.02425	.00975	.01775	-.01512	.01021	.02510	.01223

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass				
Value						.01500			.06000			
Range						30.000%			-30.000%			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2959.4	53510.	5480.9
Stddev	1.2	12.	45.6
%RSD	.04150	.02311	.83154

#1	2960.3	53502.	5448.7
#2	2958.5	53519.	5513.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00101	.00221	-.00014	.04689	-.00003	-.00021	-.00100	.00782	-.00029
Stddev	.00013	.00067	.00120	.00154	.00006	.00001	.00195	.00853	.00005
%RSD	13.153	30.165	876.83	3.2897	196.21	6.4284	195.76	109.01	17.585

#1	.00110	.00174	-.00098	.04798	.00001	-.00020	-.00238	.01386	-.00026
#2	.00092	.00268	.00071	.04580	-.00007	-.00022	.00038	.00179	-.00033

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00016	.00042	-.00133	.01007	.58184	W .00554	-.00188	.00018	-.00007
Stddev	.00048	.00031	.00010	.00045	.01891	.00063	.00245	.00002	.00017
%RSD	303.17	74.654	7.8198	4.4446	3.2501	11.447	130.08	10.045	228.79

#1	-.00050	.00064	-.00125	.01039	.59522	.00599	-.00362	.00017	-.00019
#2	.00018	.00020	-.00140	.00976	.56847	.00509	-.00015	.00020	.00005

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						.00500			
Low Limit						-.00500			

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .50499	-.00021	.00273	.00114	.03116	.00294	W .01047	.01426	.03053
Stddev	.00103	.00039	.00046	.00126	.00810	.00264	.00079	.01635	.03498
%RSD	.20334	187.70	16.961	111.29	25.996	90.085	7.5213	114.59	114.59

#1	.50572	.00007	.00306	.00024	.03689	.00107	.00991	.00271	.00579
#2	.50427	-.00049	.00240	.00203	.02544	.00481	.01102	.02582	.05526

Check ?	Chk Warn	Chk Pass	Chk Warn	Chk Pass	None				
High Limit	.50000						.00750		
Low Limit	-.50000						-.00750		

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00133	.00025	.00444	-.00021	.00306	-.02981	-.00014	.00128	-.00095
Stddev	.00035	.00002	.00145	.00016	.00041	.03091	.00069	.00025	.00308
%RSD	26.759	9.2027	32.637	75.605	13.262	103.71	503.80	19.598	322.28

#1	-.00158	.00026	.00341	-.00010	.00278	-.00795	-.00062	.00146	-.00313
#2	-.00107	.00023	.00546	-.00033	.00335	-.05167	.00035	.00110	.00122

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2965.9	53806.	5431.7
Stddev	11.3	31.	29.2
%RSD	.38161	.05689	.53685

#1	2973.9	53827.	5411.0
#2	2957.9	53784.	5452.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05373	1.8854	.91486	.99968	2.0369	.04588	1.8418	48.753	.09478
Stddev	.00004	.0002	.00142	.00109	.0430	.00171	.0041	1.037	.00080
%RSD	.07661	.01120	.15515	.10937	2.1113	3.7337	.22353	2.1261	.84201

#1	.05370	1.8853	.91587	1.0005	2.0065	.04467	1.8447	48.020	.09535
#2	.05376	1.8856	.91386	.99890	2.0673	.04709	1.8389	49.485	.09422

Check ?	Chk Pass	None	Chk Pass	Chk Pass					
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49912	F .16548	.24171	.91840	52.048	.99279	52.965	.53821	.96420
Stddev	.00331	.00081	.00063	.01890	.873	.02375	.144	.00089	.00496
%RSD	.66376	.48901	.26087	2.0576	1.6780	2.3926	.27202	.16616	.51397

#1	.50146	.16605	.24126	.90504	51.430	.97599	52.863	.53758	.96770
#2	.49677	.16491	.24215	.93176	52.665	1.0096	53.067	.53884	.96069

Check ?	Chk Pass	Chk Fail	Chk Pass						
High Limit		.05750							
Low Limit		.04275							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	53.312	.49893	9.6769	.50238	1.7531	.46996	1.7920	9.5391	20.414
Stddev	1.401	.00261	.0633	.00325	.0239	.00695	.0127	.2321	.497
%RSD	2.6276	.52327	.65359	.64745	1.3642	1.4787	.70766	2.4327	2.4327

#1	52.322	.50078	9.7216	.50468	1.7700	.47487	1.8010	9.3750	20.063
#2	54.303	.49708	9.6322	.50008	1.7362	.46504	1.7831	9.7032	20.765

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8459	.94149	1.0534	1.0580	1.8185	2.1508	.54816	.53381	.50702
Stddev	.0174	.02089	.0037	.0003	.0183	.0122	.00274	.00001	.01139
%RSD	.94001	2.2192	.35196	.03170	1.0077	.56592	.49924	.00183	2.2460

#1	1.8582	.92671	1.0508	1.0578	1.8314	2.1422	.54622	.53380	.49897
#2	1.8337	.95626	1.0560	1.0583	1.8055	2.1594	.55009	.53382	.51508

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2812.2	50317.	5352.7
Stddev	3.1	46.	84.3
%RSD	.11070	.09085	1.5742

#1	2810.0	50285.	5412.3
#2	2814.4	50349.	5293.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00078	.08802	.00505	.54187	.08267	-.00029	-.00434	218.93	-.00032
Stddev	.00083	.00166	.00266	.00249	.00112	.00008	.00136	2.87	.00015
%RSD	106.10	1.8895	52.562	.45925	1.3519	26.440	31.411	1.3122	47.733

#1	.00020	.08920	.00317	.54363	.08346	-.00023	-.00531	220.96	-.00021
#2	.00137	.08685	.00693	.54011	.08188	-.00034	-.00338	216.90	-.00043

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00021	.00123	.00012	.15043	5.3592	.01791	42.410	.07792	-.00191
Stddev	.00036	.00006	.00040	.00393	.0187	.00243	.362	.00048	.00022
%RSD	169.94	4.5301	331.45	2.6105	.34975	13.554	.85376	.61410	11.447

#1	.00004	.00127	.00041	.14765	5.3460	.01619	42.666	.07826	-.00176
#2	-.00047	.00119	-.00016	.15320	5.3725	.01963	42.154	.07759	-.00206

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.5453	.00264	.01725	.01231	65.790	.00805	.01516	7.3856	15.805
Stddev	.1336	.00009	.00188	.00244	.426	.00645	.00219	.0221	.047
%RSD	1.7705	3.5733	10.903	19.827	.64801	80.188	14.457	.29972	.29972

#1	7.6398	.00271	.01858	.01404	66.092	.00348	.01361	7.4012	15.839
#2	7.4509	.00257	.01592	.01058	65.489	.01261	.01671	7.3699	15.772

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00133	.37360	.00394	.00102	-.00777	W -.05125	-.00021	.00492	.00020
Stddev	.00033	.00595	.00185	.00113	.00030	.00290	.00026	.00123	.00270
%RSD	24.524	1.5936	46.846	110.64	3.8031	5.6598	122.35	25.054	1348.2

#1	.00110	.37781	.00525	.00182	-.00798	-.04920	-.00003	.00579	-.00171
#2	.00156	.36939	.00264	.00022	-.00756	-.05331	-.00039	.00405	.00211

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2865.8	50150.	5320.7
Stddev	37.3	482.	79.8
%RSD	1.3011	.96067	1.5006

#1	2839.4	49809.	5264.2
#2	2892.1	50490.	5377.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00076	.01983	.41537	.36631	.25227	-.00017	-.00657	150.17	-.00197
Stddev	.00042	.00030	.00574	.00072	.00009	.00009	.00273	.13	.00013
%RSD	54.902	1.5292	1.3810	.19679	.03619	50.467	41.477	.08572	6.5203

#1	.00106	.02005	.41943	.36682	.25233	-.00023	-.00850	150.26	-.00206
#2	.00047	.01962	.41132	.36580	.25221	-.00011	-.00464	150.08	-.00188

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00031	.00099	-.00013	4.4070	10.466	.01343	34.139	.25379	.00217
Stddev	.00045	.00002	.00047	.0256	.064	.00005	.103	.00125	.00009
%RSD	143.29	1.7057	361.28	.58009	.61132	.35373	.30099	.49356	3.9103

#1	-.00063	.00100	-.00046	4.4251	10.421	.01339	34.212	.25467	.00211
#2	.00000	.00098	.00020	4.3890	10.511	.01346	34.066	.25290	.00223

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.5055	.00049	.00695	.00932	41.312	.00730	.01301	7.9821	17.082
Stddev	.0119	.00025	.00267	.00077	.078	.00267	.00317	.0245	.053
%RSD	.18303	50.798	38.439	8.3037	.18966	36.603	24.374	.30760	.30760

#1	6.4970	.00032	.00506	.00878	41.257	.00541	.01077	7.9995	17.119
#2	6.5139	.00067	.00884	.00987	41.368	.00919	.01525	7.9647	17.045

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00079	.37872	.00269	-.00051	-.00821	-.02728	-.00114	.00260	-.00044
Stddev	.00136	.00236	.00022	.00009	.00246	.02575	.00003	.00054	.00022
%RSD	173.03	.62276	8.3573	18.478	29.973	94.393	2.7915	20.784	50.442

#1	-.00018	.38038	.00253	-.00058	-.00647	-.00907	-.00116	.00298	-.00028
#2	.00175	.37705	.00285	-.00045	-.00995	-.04548	-.00112	.00222	-.00059

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2942.1	52750.	5648.1
Stddev	5.5	277.	8.0
%RSD	.18680	.52493	.14150

#1	2946.0	52554.	5642.4
#2	2938.2	52946.	5653.7

Sample Name: 280-70135-B-3-A Acquired: 6/6/2015 2:44:11 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280386 6010b

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00085	-.00350	.01689	.62397	.08386	-.00023	-.00409	269.47	-.00060
Stddev	.00076	.00071	.00298	.00191	.00054	.00003	.00039	.35	.00022
%RSD	88.952	20.232	17.658	.30641	.64328	13.992	9.5446	.13159	37.119

#1	.00032	-.00300	.01900	.62532	.08424	-.00021	-.00437	269.22	-.00044
#2	.00138	-.00401	.01478	.62261	.08348	-.00026	-.00382	269.72	-.00076

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00073	.00262	.00476	15.376	2.8534	.01760	52.847	2.0900	-.00297
Stddev	.00094	.00010	.00034	.002	.0526	.00186	.085	.0041	.00078
%RSD	128.01	3.8416	7.0792	.01398	1.8449	10.581	.16061	.19609	26.148

#1	.00139	.00270	.00500	15.375	2.8161	.01628	52.907	2.0929	-.00351
#2	.00007	.00255	.00452	15.378	2.8906	.01892	52.787	2.0871	-.00242

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.881	.00323	.01062	.01240	28.427	.00787	.01165	11.149	23.860
Stddev	.132	.00030	.00221	.00017	.083	.00264	.00248	.042	.090
%RSD	.57764	9.2610	20.854	1.3876	.29067	33.472	21.275	.37668	.37668

#1	22.975	.00302	.01218	.01253	28.368	.00601	.00990	11.120	23.796
#2	22.788	.00345	.00905	.01228	28.485	.00974	.01340	11.179	23.923

Check ? Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00030	.42844	.00429	-.00030	-.00902	W -.07026	-.00086	.00499	-.00135
Stddev	.00281	.00020	.00266	.00003	.00099	.01397	.00033	.00120	.00129
%RSD	935.85	.04751	61.867	11.046	10.971	19.879	37.973	24.068	95.460

#1	-.00228	.42829	.00241	-.00028	-.00972	-.08014	-.00109	.00414	-.00044
#2	.00168	.42858	.00617	-.00032	-.00832	-.06038	-.00063	.00584	-.00226

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Warn Chk Pass Chk Pass Chk Pass
 High Limit 45.000
 Low Limit -.05000

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2870.4	51559.	5607.0
Stddev	5.7	283.	3.6
%RSD	.19817	.54942	.06452

#1	2874.4	51359.	5604.5
#2	2866.4	51760.	5609.6

Sample Name: 280-70135-B-6-A Acquired: 6/6/2015 2:46:47 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280386 6010b

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00080	.00354	.02216	.45797	.23977	-.00020	-.00451	203.06	-.00041
Stddev	.00020	.00077	.00086	.00097	.00272	.00007	.00035	2.38	.00014
%RSD	24.569	21.877	3.8926	.21274	1.1342	34.488	7.7983	1.1711	33.565

#1	.00066	.00299	.02277	.45729	.24169	-.00025	-.00476	204.74	-.00051
#2	.00094	.00408	.02155	.45866	.23785	-.00015	-.00426	201.38	-.00031

Check ? Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.00103	-.00049	11.681	3.6711	.01690	35.277	1.0051	-.00109
Stddev	.00001	.00004	.00030	.141	.0154	.00336	.011	.0013	.00016
%RSD	45.153	3.4044	61.396	1.2032	.42019	19.890	.03043	.13028	15.031

#1	.00002	.00101	-.00028	11.780	3.6820	.01928	35.284	1.0061	-.00098
#2	.00004	.00106	-.00071	11.581	3.6602	.01452	35.269	1.0042	-.00121

Check ? Chk Pass
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.366	.00154	.04613	.01049	11.380	.00688	.01540	10.757	23.020
Stddev	.320	.00045	.00002	.00024	.072	.00266	.00099	.153	.328
%RSD	1.5689	28.992	.04892	2.2954	.63486	38.672	6.4067	1.4261	1.4261

#1	20.592	.00123	.04611	.01032	11.329	.00876	.01610	10.866	23.252
#2	20.140	.00186	.04615	.01066	11.431	.00500	.01470	10.649	22.788

Check ? Chk Pass
 High Limit
 Low Limit

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	.41778	.00380	-.00071	-.00836	W -.06487	-.00107	.00571	-.00136
Stddev	.00180	.00602	.00351	.00018	.00086	.01678	.00087	.00033	.00096
%RSD	1261.9	1.4412	92.413	25.288	10.275	25.859	81.304	5.8260	70.208

#1	-.00141	.42204	.00132	-.00083	-.00775	-.05301	-.00045	.00595	-.00204
#2	.00113	.41352	.00629	-.00058	-.00897	-.07674	-.00168	.00548	-.00068

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Warn Chk Pass Chk Pass Chk Pass
 High Limit 45.000
 Low Limit -.05000

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2968.9	53533.	5661.4
Stddev	4.3	79.	109.5
%RSD	.14326	.14835	1.9341

#1	2965.9	53590.	5583.9
#2	2971.9	53477.	5738.8

Sample Name: 280-70126-A-1-A Acquired: 6/6/2015 2:49:23 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280386 6010b

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00031	-.02111	.30092	.30555	.50099	-.00025	-.00441	432.68	-.00210
Stddev	.00017	.00223	.00788	.00093	.00407	.00014	.00054	6.63	.00001
%RSD	53.791	10.546	2.6194	.30366	.81292	56.401	12.205	1.5313	.57783

#1	.00043	-.01954	.30649	.30621	.49811	-.00015	-.00479	428.00	-.00211
#2	.00019	-.02269	.29534	.30489	.50387	-.00036	-.00403	437.37	-.00209

Check ? Chk Pass
 High Limit
 Low Limit

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	.00108	.00014	55.796	15.355	.02015	54.172	.84543	-.00290
Stddev	.00042	.00028	.00048	.769	.048	.00065	.155	.00127	.00016
%RSD	357.62	25.943	336.27	1.3778	.31108	3.2122	.28631	.15021	5.3762

#1	.00018	.00089	.00048	55.252	15.321	.02061	54.282	.84453	-.00301
#2	-.00042	.00128	-.00020	56.339	15.388	.01969	54.063	.84633	-.00279

Check ? Chk Pass
 High Limit
 Low Limit

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	44.950	.00259	.59793	.00781	.33070	.00802	.01278	11.584	24.789
Stddev	1.086	.00013	.00544	.00153	.00720	.00082	.00005	.218	.466
%RSD	2.4162	4.9876	.90906	19.623	2.1761	10.284	.40243	1.8807	1.8807

#1	44.182	.00250	.60178	.00889	.33579	.00743	.01274	11.430	24.459
#2	45.718	.00268	.59409	.00672	.32561	.00860	.01281	11.738	25.119

Check ? Chk Pass
 High Limit
 Low Limit

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00141	.80504	.00848	-.00061	-.00884	-.04041	-.00056	.00263	.00092
Stddev	.00089	.00432	.00058	.00030	.00219	.01259	.00004	.00033	.00083
%RSD	62.966	.53614	6.8101	48.461	24.731	31.141	6.5649	12.390	90.706

#1	.00078	.80198	.00807	-.00082	-.01039	-.03151	-.00054	.00286	.00150
#2	.00204	.80809	.00888	-.00040	-.00730	-.04931	-.00059	.00240	.00033

Check ? Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2915.8	52008.	5807.7
Stddev	2.5	123.	26.6
%RSD	.08736	.23643	.45791

#1	2914.0	52095.	5826.5
#2	2917.7	51921.	5788.9

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00039	-.02494	.31580	.30192	.52170	-.00028	-.00277	447.09	-.00187
Stddev	.00052	.00087	.00474	.00411	.00704	.00003	.00157	5.27	.00004
%RSD	133.96	3.4958	1.5022	1.3613	1.3488	10.634	56.844	1.1780	2.1543

#1	.00075	-.02556	.31245	.29901	.52668	-.00030	-.00165	450.82	-.00184
#2	.00002	-.02433	.31915	.30482	.51673	-.00025	-.00388	443.37	-.00190

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	271.441 {124}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00033	.00081	-.00066	57.033	15.706	.02043	54.853	.85139	-.00294
Stddev	.00011	.00010	.00036	.615	.185	.00091	.147	.00185	.00014
%RSD	32.685	12.838	54.867	1.0781	1.1776	4.4702	.26754	.21714	4.9247

#1	.00041	.00088	-.00092	57.467	15.837	.02108	54.750	.85009	-.00284
#2	.00025	.00073	-.00041	56.598	15.575	.01979	54.957	.85270	-.00304

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	45.291	.00272	.59211	.00940	.32393	.00779	.01401	11.845	25.348
Stddev	.009	.00008	.00507	.00104	.00705	.00030	.00319	.086	.185
%RSD	.01977	2.9224	.85708	11.087	2.1749	3.8356	22.790	.72950	.72950

#1	45.284	.00266	.58852	.00866	.32891	.00758	.01626	11.906	25.478
#2	45.297	.00278	.59569	.01014	.31895	.00801	.01175	11.784	25.217

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00128	.81937	.01020	-.00050	W -.01154	W -.08875	-.00063	.00344	-.00096
Stddev	.00159	.00938	.00110	.00017	.00078	.01562	.00126	.00026	.00087
%RSD	124.51	1.1442	10.795	33.477	6.7479	17.599	200.40	7.4664	90.382

#1	.00015	.82600	.01098	-.00038	-.01099	-.09980	.00026	.00362	-.00035
#2	.00241	.81274	.00942	-.00062	-.01210	-.07771	-.00152	.00326	-.00157

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000	45.000			
Low Limit					-.01000	-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2913.1	52003.	5763.3
Stddev	12.6	303.	36.4
%RSD	.43197	.58178	.63179

#1	2904.2	52217.	5737.6
#2	2922.0	51789.	5789.1

Sample Name: 280-70126-A-5-A Acquired: 6/6/2015 2:54:51 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280386 6010b

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00100	.00720	.00377	.25615	.37966	-.00019	-.00165	139.31	-.00062
Stddev	.00017	.00102	.00359	.00529	.00260	.00003	.00143	.93	.00010
%RSD	17.102	14.146	95.029	2.0656	.68482	14.841	86.395	.66976	15.262

#1	.00088	.00648	.00124	.25240	.37782	-.00017	-.00267	138.65	-.00069
#2	.00113	.00792	.00631	.25989	.38149	-.00021	-.00064	139.97	-.00056

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	.00112	.00058	6.7322	3.2136	.01506	39.345	.17836	-.00220
Stddev	.00008	.00016	.00059	.0925	.0018	.00155	.034	.00027	.00029
%RSD	95.248	14.053	100.40	1.3739	.05512	10.315	.08575	.15087	13.400

#1	-.00003	.00123	.00017	6.6668	3.2123	.01616	39.369	.17855	-.00199
#2	-.00015	.00101	.00100	6.7976	3.2148	.01396	39.321	.17817	-.00241

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	71.543	.00195	.05918	.01025	3.3804	.00277	.01049	7.6944	16.466
Stddev	.573	.00004	.00042	.00044	.0736	.00432	.00036	.1240	.265
%RSD	.80141	1.9982	.70673	4.2725	2.1770	156.25	3.4741	1.6110	1.6110

#1	71.138	.00197	.05888	.00994	3.3283	-.00029	.01075	7.6068	16.279
#2	71.949	.00192	.05948	.01056	3.4324	.00582	.01023	7.7821	16.654

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00077	.27330	.00511	-.00014	-.00715	-.03939	-.00068	.01910	.00129
Stddev	.00155	.00237	.00368	.00048	.00153	.01610	.00036	.00049	.00064
%RSD	199.89	.86753	72.092	345.89	21.435	40.871	52.598	2.5634	49.819

#1	.00187	.27162	.00250	.00020	-.00606	-.02800	-.00043	.01945	.00084
#2	-.00032	.27498	.00771	-.00048	-.00823	-.05077	-.00094	.01876	.00174

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2939.2	53464.	5678.1
Stddev	67.6	57.	16.6
%RSD	2.3010	.10606	.29312

#1	2987.0	53424.	5689.8
#2	2891.3	53504.	5666.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00158	.24427	-.00129	.28911	.46885	-.00004	-.00419	202.15	-.00022
Stddev	.00031	.00133	.00188	.00242	.00153	.00006	.00263	.53	.00030
%RSD	19.458	.54426	145.53	.83718	.32662	143.23	62.600	.26264	133.74

#1	.00136	.24333	.00004	.28740	.46777	-.00008	-.00234	201.78	-.00044
#2	.00180	.24521	-.00261	.29083	.46993	.00000	-.00605	202.53	-.00001

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00113	.00196	.00036	14.732	3.4447	.01591	59.584	.15392	-.00271
Stddev	.00004	.00018	.00056	.061	.0191	.00110	.119	.00098	.00029
%RSD	3.3770	9.3087	152.97	.41593	.55342	6.9082	.19974	.63643	10.779

#1	.00110	.00184	-.00003	14.689	3.4312	.01669	59.668	.15461	-.00250
#2	.00115	.00209	.00076	14.775	3.4582	.01513	59.500	.15323	-.00292

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.418	.00312	.07515	.00982	2.5358	.00078	.01301	10.634	22.756
Stddev	.303	.00062	.00136	.00047	.0074	.00418	.00329	.096	.205
%RSD	.61290	19.829	1.8063	4.7526	.29010	537.36	25.335	.90129	.90129

#1	49.204	.00268	.07611	.00949	2.5410	-.00218	.01068	10.566	22.611
#2	49.632	.00356	.07419	.01015	2.5306	.00373	.01534	10.701	22.901

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00108	.46278	.00606	.00615	W -.01025	W -.05125	.00009	.00556	.00044
Stddev	.00260	.00208	.00136	.00087	.00016	.05249	.00076	.00011	.00086
%RSD	241.19	.44940	22.518	14.129	1.5961	102.42	855.36	1.9146	197.06

#1	.00291	.46131	.00703	.00677	-.01014	-.01413	.00063	.00564	-.00017
#2	-.00076	.46425	.00510	.00554	-.01037	-.08837	-.00045	.00549	.00105

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass
High Limit					5.0000	45.000			
Low Limit					-.01000	-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2954.1	53074.	5622.9
Stddev	.6	385.	16.0
%RSD	.01868	.72460	.28475

#1	2953.7	52802.	5611.6
#2	2954.5	53346.	5634.3

Sample Name: CCVH-3304613 Acquired: 6/6/2015 3:00:08 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00423	50.063	.00296	.01422	-.00009	.00012	W .90195	.04330	-.00055	-.00176	.00084
Stddev	.00135	.069	.00510	.00037	.00012	.00002	.01042	.00125	.00021	.00010	.00030
%RSD	32.008	.13880	172.28	2.6110	133.01	15.740	1.1547	2.8815	37.819	5.5125	36.288

#1	.00327	50.112	.00657	.01396	-.00001	.00014	.90932	.04242	-.00069	-.00182	.00105
#2	.00519	50.014	-.00065	.01448	-.00018	.00011	.89459	.04418	-.00040	-.00169	.00062

Check ?	None	Chk Pass	None	None	None	None	Chk Warn	None	None	None	None
Value							1.0000				
Range							-5.0000%				

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00157	46.955	.40643	.00833	-.00837	-.00162	-.00080	253.01	.00116	.00250	.00198
Stddev	.00085	.078	.05074	.00217	.00655	.00005	.00015	.90	.00047	.00414	.00129
%RSD	53.958	.16572	12.484	26.039	78.251	2.9171	18.641	.35720	40.115	165.84	65.044

#1	-.00097	46.900	.37055	.00986	-.01300	-.00165	-.00070	253.65	.00149	-.00043	.00107
#2	-.00217	47.010	.44231	.00680	-.00374	-.00159	-.00091	252.37	.00083	.00542	.00289

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 4.2368	-.00942	.00290	-.00341	-.00730	-.00242	.00044	5.1184	-.01707	.00344	10.444
Stddev	.0341	.00107	.00143	.02669	.05711	.00187	.00002	.0050	.00064	.00069	.030
%RSD	.80457	11.340	49.252	782.13	782.13	77.114	5.5881	.09734	3.7584	20.178	.28513

#1	4.2609	-.01018	.00391	-.02228	-.04769	-.00374	.00042	5.1219	-.01752	.00295	10.465
#2	4.2127	-.00867	.00189	.01546	.03308	-.00110	.00046	5.1148	-.01661	.00393	10.423

Check ?	Chk Fail	None	None	None	None	None	None	Chk Pass	None	None	Chk Pass
Value	5.0000										
Range	-10.490%										

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00267	.00124	.05808
Stddev	.00092	.00072	.00544
%RSD	34.437	58.257	9.3600

#1	.00202	.00073	.06193
#2	.00332	.00175	.05424

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3029.3	53167.	5525.9
Stddev	27.3	51.	3.7
%RSD	.90106	.09626	.06708

#1	3010.0	53131.	5523.3
#2	3048.6	53203.	5528.5

Sample Name: CCV-3305006 Acquired: 6/6/2015 3:02:43 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51593	.48293	.90327	.47780	.49168	F .44197	-.00227	4.8373	.46562	.50067	F .43981
Stddev	.00745	.00141	.00305	.00118	.00837	.00578	.00113	.0676	.00042	.00108	.00159
%RSD	1.4443	.29266	.33768	.24687	1.7015	1.3081	49.825	1.3977	.09073	.21539	.36249

#1	.51066	.48393	.90111	.47696	.48576	.43788	-.00147	4.7895	.46533	.49990	.43868
#2	.52120	.48193	.90543	.47863	.49759	.44606	-.00307	4.8851	.46592	.50143	.44094

Check ?	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail				
Value						.50000					.50000
Range						-10.490%					-10.490%

Elem	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46638	F 2.2013	49.898	.95957	20.613	.51870	F .44726	5.0398	.50215	.93026	.97976
Stddev	.00652	.0297	.769	.01832	.268	.00732	.00017	.0804	.00067	.00998	.00111
%RSD	1.3974	1.3479	1.5410	1.9094	1.3025	1.4114	.03758	1.5956	.13315	1.0727	.11344

#1	.46177	2.1804	49.354	.94662	20.423	.51353	.44714	4.9830	.50167	.92321	.97897
#2	.47098	2.2223	50.441	.97253	20.803	.52388	.44738	5.0967	.50262	.93732	.98054

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		2.5000					.50000				
Range		-10.490%					-10.490%				

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01155	.90272	F .87945	4.5155	9.6632	W .89945	.45583	.00123	.50875	.90805	-.01941
Stddev	.00061	.00211	.00346	.0897	.1919	.00262	.00623	.00195	.00276	.00473	.04339
%RSD	5.3225	.23426	.39391	1.9862	1.9862	.29151	1.3659	158.03	.54180	.52077	223.55

#1	.01112	.90422	.87700	4.4521	9.5275	.89760	.45142	.00261	.50680	.90470	.01127
#2	.01199	.90123	.88190	4.5789	9.7989	.90130	.46023	-.00014	.51070	.91139	-.05009

Check ?	None	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Warn	Chk Pass	None	Chk Pass	Chk Pass	None
Value			1.0000			1.0000					
Range			-10.490%			-10.000%					

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.52353	.51536	.47611
Stddev	.00431	.00518	.00159
%RSD	.82257	1.0055	.33370

#1	.52048	.51169	.47499
#2	.52657	.51902	.47723

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3064.7	55053.	5787.2
Stddev	6.2	374.	76.5
%RSD	.20111	.67859	1.3216

#1	3060.3	55317.	5841.2
#2	3069.0	54789.	5733.1

Sample Name: CCB Acquired: 6/6/2015 3:05:12 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00019	-.00049	-.00017	.01204	-.00007	-.00008	-.00157	.01237	-.00015	.00027	.00032	-.00141
Stddev	.00044	.00016	.00078	.00009	.00008	.00010	.00393	.00192	.00015	.00016	.00019	.00037
%RSD	237.19	32.451	449.17	.73530	125.57	127.08	250.29	15.493	100.60	59.770	60.574	26.226

#1	.00050	-.00038	.00038	.01198	-.00012	-.00016	-.00435	.01372	-.00026	.00015	.00045	-.00167
#2	-.00013	-.00061	-.00073	.01210	-.00001	-.00001	.00121	.01101	-.00004	.00038	.00018	-.00115

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00149	.27897	.00533	-.00610	.00007	-.00006	.16876	.00003	-.00072	.00134	.00647	.00065
Stddev	.00253	.00210	.00029	.00095	.00006	.00019	.00679	.00023	.00048	.00118	.00134	.00280
%RSD	170.59	.75435	5.4208	15.488	83.351	324.73	4.0258	676.13	66.649	88.397	20.711	431.23

#1	-.00328	.28046	.00512	-.00543	.00012	.00008	.16396	-.00013	-.00107	.00217	.00742	.00263
#2	.00031	.27749	.00553	-.00677	.00003	-.00020	.17357	.00019	-.00038	.00050	.00553	-.00133

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .00929	-.00295	-.00631	.00002	.00026	.00446	.00002	.00122	-.00462	.00002	.00045	.00117
Stddev	.00595	.03011	.06444	.00018	.00013	.00077	.00020	.00013	.01296	.00003	.00045	.00175
%RSD	63.992	1021.2	1021.2	1015.4	49.343	17.282	893.54	10.445	280.70	124.53	100.18	148.92

#1	.00509	-.02424	-.05187	-.00011	.00017	.00391	-.00012	.00113	-.01378	.00000	.00076	.00241
#2	.01350	.01834	.03925	.00015	.00035	.00500	.00017	.00131	.00455	.00005	.00013	-.00006

Check ?	Chk Fail	Chk Pass										
High Limit	.00500											
Low Limit	-.00500											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3102.7	55588.	5794.0
Stddev	1.9	375.	153.5
%RSD	.06011	.67409	2.6502

#1	3104.0	55323.	5902.6
#2	3101.3	55853.	5685.5

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01127	.10012	.01834	.10245	.00986	.00081	.10058	.21121	.00442	.01034	.00921	.01361
Stddev	.00087	.00056	.00458	.00043	.00008	.00002	.00000	.00064	.00014	.00007	.00021	.00015
%RSD	7.7383	.55633	24.954	.42072	.77008	2.6648	.00204	.30425	3.2201	.70189	2.2622	1.0808

#1	.01066	.10052	.01511	.10275	.00991	.00083	.10058	.21166	.00452	.01039	.00936	.01351
#2	.01189	.09973	.02158	.10214	.00980	.00080	.10058	.21076	.00432	.01029	.00907	.01372

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09039	3.4810	F .01607	.21896	.01101	.01771	1.1919	.04164	2.6850	.00892	.01285	.01025
Stddev	.00075	.0560	.00004	.00055	.00024	.00008	.0008	.00054	.0041	.00088	.00542	.00176
%RSD	.83030	1.6096	.26518	.24917	2.2217	.42967	.06422	1.3004	.15260	9.8983	42.220	17.167

#1	.08986	3.5206	.01610	.21935	.01084	.01776	1.1925	.04202	2.6878	.00830	.00901	.01150
#2	.09092	3.4413	.01604	.21857	.01119	.01765	1.1914	.04126	2.6821	.00954	.01668	.00901

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .02068	.45297	.96935	.09102	.00967	.01819	.00989	.01719	.05663	.01103	.02440	.01541
Stddev	.00043	.00978	.02092	.00010	.00008	.00173	.00052	.00116	.00255	.00024	.00020	.00023
%RSD	2.0682	2.1582	2.1582	.11309	.86418	9.5317	5.2346	6.7399	4.4949	2.1710	.80484	1.5157

#1	.02038	.44606	.95456	.09109	.00973	.01697	.00952	.01637	.05483	.01086	.02426	.01524
#2	.02098	.45988	.98414	.09094	.00961	.01942	.01026	.01801	.05843	.01120	.02454	.01557

Check ?	Chk Fail	Chk Pass										
Value	.01500											
Range	30.000%											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3129.4	56604.	5836.6
Stddev	.3	298.	82.9
%RSD	.00991	.52574	1.4205

#1	3129.6	56814.	5895.2
#2	3129.1	56393.	5777.9

Sample Name: 280-70126-A-11-A Acquired: 6/6/2015 3:10:14 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280386 6010b

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00112	-0.00434	-0.00049	.28107	.47176	-0.00011	-0.00730	210.60	-0.00016
Stddev	.00004	.00028	.00025	.00159	.01056	.00006	.00119	5.20	.00017
%RSD	3.3989	6.5306	50.624	.56505	2.2385	48.195	16.272	2.4697	110.17

#1	.00110	-.00414	-.00032	.28219	.46429	-.00008	-.00646	206.92	-.00003
#2	.00115	-.00454	-.00067	.27995	.47923	-.00015	-.00814	214.27	-.00028

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00128	.00074	-0.00109	11.934	2.8605	.01571	57.865	.12866	-0.00359
Stddev	.00000	.00008	.00054	.303	.0750	.00170	.120	.00065	.00071
%RSD	.18190	11.392	49.078	2.5427	2.6204	10.817	.20698	.50684	19.739

#1	.00128	.00080	-.00147	11.720	2.8075	.01691	57.780	.12820	-.00409
#2	.00128	.00068	-.00071	12.149	2.9135	.01451	57.949	.12912	-.00309

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.973	.00241	.25515	.00909	5.3633	.00836	.00879	10.573	22.626
Stddev	.803	.00031	.00027	.00014	.0222	.00128	.00320	.187	.399
%RSD	1.6076	12.964	.10612	1.5609	.41398	15.326	36.352	1.7647	1.7647

#1	49.405	.00219	.25496	.00919	5.3790	.00746	.01105	10.441	22.343
#2	50.541	.00263	.25535	.00899	5.3476	.00927	.00653	10.705	22.908

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00188	.51396	.00398	-0.00080	-0.00883	W -.05506	-0.00059	.00022	-0.00051
Stddev	.00019	.01214	.00206	.00021	.00397	.00502	.00043	.00049	.00217
%RSD	10.133	2.3623	51.747	26.531	44.929	9.1138	73.261	219.63	424.48

#1	.00175	.50537	.00543	-.00095	-.01164	-.05860	-.00028	-.00012	-.00204
#2	.00201	.52254	.00252	-.00065	-.00603	-.05151	-.00089	.00057	.00102

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2959.5	52885.	5671.2
Stddev	6.6	69.	95.9
%RSD	.22184	.13102	1.6916

#1	2964.1	52934.	5739.1
#2	2954.9	52836.	5603.4

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00079	.00029	.00331	.15961	.17889	-.00012	-.00306	124.32	-.00020
Stddev	.00013	.00008	.00278	.00178	.00180	.00002	.00099	1.59	.00002
%RSD	16.658	28.658	84.034	1.1162	1.0090	12.679	32.165	1.2765	11.790

#1	.00070	.00023	.00134	.16087	.17761	-.00013	-.00237	123.19	-.00022
#2	.00088	.00035	.00527	.15835	.18016	-.00011	-.00376	125.44	-.00019

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	.00091	-.00031	.88208	3.4040	.01421	38.219	.21364	.00058
Stddev	.00018	.00025	.00088	.00824	.0229	.00101	.020	.00010	.00007
%RSD	683.50	27.414	283.24	.93423	.67343	7.1313	.05289	.04696	12.913

#1	-.00016	.00073	-.00093	.87626	3.4202	.01349	38.234	.21371	.00063
#2	.00010	.00108	.00031	.88791	3.3878	.01493	38.205	.21357	.00053

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	83.473	.00031	.00468	.01097	26.429	.00395	.01246	6.6363	14.202
Stddev	.135	.00038	.00085	.00219	.096	.00068	.00167	.0529	.113
%RSD	.16191	124.13	18.212	19.985	.36418	17.314	13.380	.79768	.79768

#1	83.377	.00004	.00407	.01252	26.497	.00443	.01364	6.5988	14.122
#2	83.568	.00058	.00528	.00942	26.361	.00347	.01128	6.6737	14.282

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00036	.23297	.00449	-.00083	-.00835	-.00222	-.00095	.00154	.00090
Stddev	.00068	.00248	.00095	.00043	.00045	.05426	.00034	.00140	.00107
%RSD	187.84	1.0636	21.165	51.865	5.4277	2445.7	36.223	91.100	119.18

#1	-.00084	.23122	.00382	-.00052	-.00867	.03615	-.00070	.00055	.00166
#2	.00012	.23472	.00516	-.00113	-.00803	-.04059	-.00119	.00253	.00014

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2965.8	52339.	5543.5
Stddev	11.4	54.	41.2
%RSD	.38481	.10252	.74257

#1	2957.8	52377.	5572.6
#2	2973.9	52301.	5514.4

Sample Name: 280-70126-A-13-A Acquired: 6/6/2015 3:15:29 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280386 6010b

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00157	.00649	.00042	.40585	.09189	-.00018	-.00439	145.38	-.00022
Stddev	.00043	.00025	.01170	.00382	.00185	.00001	.00406	2.37	.00005
%RSD	27.324	3.9006	2798.4	.94089	2.0153	7.6431	92.486	1.6287	22.168

#1	.00127	.00667	.00869	.40855	.09058	-.00017	-.00152	143.71	-.00025
#2	.00188	.00631	-.00786	.40315	.09320	-.00019	-.00726	147.05	-.00018

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00106	.00081	-.00032	1.1776	3.0686	.02583	42.432	.08481	.00814
Stddev	.00034	.00020	.00038	.0071	.0235	.00124	.021	.00055	.00014
%RSD	32.553	25.221	119.00	.60432	.76628	4.7960	.04981	.64482	1.6890

#1	.00081	.00066	-.00059	1.1725	3.0519	.02496	42.447	.08520	.00804
#2	.00130	.00095	-.00005	1.1826	3.0852	.02671	42.417	.08442	.00823

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.066	.00259	.00338	.01166	23.138	.00490	.00936	9.0068	19.275
Stddev	.361	.00012	.00137	.00112	.238	.00042	.00118	.0777	.166
%RSD	.90184	4.5721	40.409	9.5917	1.0265	8.6320	12.630	.86282	.86282

#1	39.811	.00251	.00241	.01087	23.306	.00460	.00853	8.9519	19.157
#2	40.322	.00268	.00434	.01245	22.970	.00520	.01020	9.0618	19.392

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00244	.21550	.00372	-.00081	-.00620	-.02223	-.00155	.00681	.00029
Stddev	.00027	.00324	.00150	.00100	.00002	.00194	.00034	.00029	.00163
%RSD	11.034	1.5021	40.282	122.45	.38748	8.7125	21.972	4.1897	555.22

#1	.00225	.21321	.00477	-.00152	-.00622	-.02360	-.00179	.00661	-.00086
#2	.00263	.21779	.00266	-.00011	-.00619	-.02086	-.00131	.00701	.00145

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2940.4	52435.	5623.8
Stddev	11.6	25.	67.5
%RSD	.39398	.04792	1.1994

#1	2932.2	52453.	5671.5
#2	2948.6	52417.	5576.1

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00077	.00331	.00564	.08835	.01816	-.00019	-.00211	29.493	-.00032
Stddev	.00015	.00027	.00314	.00024	.00055	.00005	.00100	.140	.00013
%RSD	20.069	8.1649	55.691	.27087	3.0300	27.217	47.437	.47515	39.821

#1	.00087	.00311	.00342	.08818	.01855	-.00015	-.00282	29.592	-.00041
#2	.00066	.00350	.00787	.08852	.01777	-.00022	-.00140	29.394	-.00023

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00000	.00044	-.00061	.24641	.85119	.01105	8.7046	.01750	.00114
Stddev	.00010	.00008	.00076	.00006	.03261	.00020	.0122	.00010	.00012
%RSD	6413.6	17.628	124.78	.02611	3.8308	1.7960	.14004	.58660	10.713

#1	.00007	.00039	-.00114	.24637	.82813	.01119	8.7132	.01743	.00123
#2	-.00007	.00049	-.00007	.24646	.87424	.01091	8.6960	.01757	.00105

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	589.592 {57}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.7323	.00108	.00207	.00510	4.5306	-.00022	.01028	1.7780	3.8049
Stddev	.0253	.00025	.00138	.00173	.0360	.00198	.00317	.0164	.0351
%RSD	.32746	23.021	66.815	33.880	.79429	897.82	30.787	.92265	.92265

#1	7.7502	.00125	.00304	.00632	4.5052	.00118	.01252	1.7664	3.7801
#2	7.7144	.00090	.00109	.00388	4.5561	-.00162	.00804	1.7896	3.8298

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00325	.04468	.00335	-.00069	-.00287	-.02249	-.00006	.00354	.00028
Stddev	.00139	.00029	.00060	.00003	.00364	.03506	.00073	.00048	.00092
%RSD	42.827	.64176	17.941	4.7415	126.60	155.91	1264.2	13.602	329.00

#1	.00226	.04448	.00293	-.00066	-.00030	-.04728	.00046	.00388	.00093
#2	.00423	.04488	.00378	-.00071	-.00545	.00230	-.00057	.00320	-.00037

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	3046.6	54397.	5684.6
Stddev	6.4	186.	30.7
%RSD	.21164	.34274	.53924

#1	3051.1	54265.	5663.0
#2	3042.0	54529.	5706.3

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05292	1.7665	.89072	1.3359	2.0616	.04427	F 1.7666	193.67	.09164
Stddev	.00020	.0066	.00045	.0014	.0499	.00098	.0105	4.63	.00027
%RSD	.37853	.37378	.05039	.10422	2.4222	2.2185	.59641	2.3897	.29375

#1	.05277	1.7619	.89040	1.3349	2.0263	.04358	1.7591	190.39	.09145
#2	.05306	1.7712	.89103	1.3369	2.0969	.04496	1.7740	196.94	.09183

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass					
High Limit							.10000		
Low Limit							-.10000		

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46958	W .15974	.23309	2.0685	53.506	.98903	94.002	.59579	.92802
Stddev	.00340	.00094	.00046	.0454	1.349	.02029	.343	.00145	.00231
%RSD	.72354	.58569	.19597	2.1961	2.5213	2.0516	.36469	.24390	.24869

#1	.46718	.16040	.23341	2.0364	52.552	.97468	93.760	.59476	.92638
#2	.47198	.15908	.23277	2.1006	54.460	1.0034	94.244	.59681	.92965

Check ?	Chk Pass	Chk Warn	Chk Pass						
High Limit		.10000							
Low Limit		-.01000							

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	91.738	.47199	W 9.6145	.47691	25.694	.46467	1.7444	18.303	39.169
Stddev	1.485	.00365	.0161	.00233	.001	.00236	.0077	.203	.435
%RSD	1.6189	.77278	.16783	.48876	.00215	.50745	.44048	1.1108	1.1108

#1	90.688	.46941	9.6031	.47526	25.694	.46300	1.7390	18.159	38.861
#2	92.788	.47457	9.6259	.47856	25.693	.46633	1.7499	18.447	39.476

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			2.0000						
Low Limit			-1.0000						

Elem	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.7437	1.1258	1.0111	1.0160	1.6683	2.0222	.52636	.50683	.49082
Stddev	.0055	.0268	.0037	.0014	.0039	.0754	.00093	.00428	.01253
%RSD	.31628	2.3825	.36126	.14032	.23553	3.7269	.17620	.84349	2.5526

#1	1.7398	1.1068	1.0085	1.0170	1.6655	2.0755	.52570	.50985	.48196
#2	1.7476	1.1448	1.0137	1.0150	1.6711	1.9689	.52701	.50381	.49968

Check ?	Chk Pass								
High Limit									
Low Limit									

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2870.4	50962.	5592.0
Stddev	16.0	154.	87.2
%RSD	.55715	.30192	1.5585

#1	2881.7	50853.	5653.6
#2	2859.1	51071.	5530.3

Elem	Ag3280	Al1670	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Line	328.068 {103}	167.079 {502}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}	223.061 {451}	317.933 {106}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05490	1.8102	W 2.3971	.91925	1.3815	2.1572	.04613	F 1.8091	204.54
Stddev	.00026	.0020	.0185	.00248	.0017	.0250	.00024	.0068	2.53
%RSD	.48096	.11292	.77314	.26961	.12526	1.1608	.51801	.37720	1.2354

#1	.05509	1.8088	2.4102	.91750	1.3827	2.1395	.04630	1.8139	202.75
#2	.05472	1.8117	2.3840	.92100	1.3803	2.1749	.04596	1.8043	206.32

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit			500.00					.10000	
Low Limit			3.2000					-.10000	

Elem	Cd2288	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Line	228.802 {447}	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09436	.48190	W .16432	.24199	2.7409	56.206	1.0351	97.569	.62045
Stddev	.00026	.00095	.00138	.00136	.0070	.669	.0121	.251	.00211
%RSD	.27286	.19621	.84211	.56082	.25611	1.1903	1.1714	.25757	.34069

#1	.09454	.48257	.16530	.24295	2.7359	55.733	1.0266	97.746	.62194
#2	.09418	.48123	.16335	.24103	2.7458	56.680	1.0437	97.391	.61895

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass					
High Limit			.10000						
Low Limit			-.01000						

Elem	Mo2020	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	202.030 {467}	818.326 { 41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.95414	95.881	.48455	W 9.8535	.48978	26.601	.47517	1.7778	19.108
Stddev	.00484	.651	.00212	.0351	.00004	.142	.00328	.0144	.129
%RSD	.50681	.67886	.43799	.35578	.00803	.53350	.69123	.81133	.67257

#1	.95756	95.421	.48606	9.8783	.48975	26.702	.47750	1.7880	19.017
#2	.95072	96.341	.48305	9.8288	.48980	26.501	.47285	1.7676	19.198

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass				
High Limit				2.0000					
Low Limit				-1.0000					

Elem	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 { 91}	292.402 {115}	206.200 {163}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.890	1.7866	1.1817	1.0400	1.0493	1.6958	2.1064	.54451	.52217
Stddev	.275	.0035	.0119	.0008	.0032	.0115	.0157	.00123	.00068
%RSD	.67257	.19585	1.0034	.08073	.30632	.67896	.74289	.22515	.13017

#1	40.696	1.7841	1.1734	1.0406	1.0515	1.7040	2.0953	.54364	.52169
#2	41.085	1.7891	1.1901	1.0394	1.0470	1.6877	2.1174	.54537	.52265

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Zr3391
Line	339.198 { 99}
Units	ppm
Avg	.50809
Stddev	.00732
%RSD	1.4403

#1	.50291
#2	.51326

Check ?	Chk Pass
High Limit	
Low Limit	

Sample Name: 280-70126-A-13-C MSD Acquired: 6/6/2015 3:23:08 Type: Unk
Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
User: CRHOADES Prep Date: Custom ID2: Custom ID3:
Comment: 280386 6010b

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S
Avg	2857.7	50723.	5483.0
Stddev	10.9	24.	47.6
%RSD	.38201	.04686	.86812
#1	2865.4	50740.	5516.6
#2	2850.0	50706.	5449.3

Sample Name: 280-70126-A-14-A Acquired: 6/6/2015 3:25:32 Type: Unk
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment: 280386 6010b

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288
Line	328.068 {103}	167.079 {502}	189.042 {478}	208.959 {461}	455.403 {74}	313.042 {108}	223.061 {451}	317.933 {106}	228.802 {447}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00027	-.00196	-.00122	.23215	.77896	-.00019	-.00361	181.78	-.00056
Stddev	.00004	.00079	.00230	.00005	.00189	.00002	.00188	.30	.00013
%RSD	15.376	40.291	188.03	.02188	.24299	9.5490	52.160	.16695	23.627

#1	.00024	-.00140	.00040	.23219	.78030	-.00020	-.00495	182.00	-.00047
#2	.00030	-.00251	-.00285	.23212	.77762	-.00017	-.00228	181.57	-.00066

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Co2286	Cr2055	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Line	228.616 {447}	205.560 {464}	324.754 {104}	259.940 {130}	766.490 {44}	670.784 {50}	279.079 {121}2	257.610 {131}	202.030 {467}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00000	.00075	-.00158	17.840	2.8903	.01580	39.899	.12793	-.00159
Stddev	.0001	.00006	.00039	.024	.0515	.00015	.020	.00000	.00058
%RSD	31379.	7.7616	24.443	.13423	1.7805	.97807	.04984	.00027	36.617

#1	-.00004	.00080	-.00131	17.857	2.8539	.01591	39.885	.12793	-.00200
#2	.00004	.00071	-.00186	17.823	2.9267	.01569	39.913	.12793	-.00118

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1782	Pb2203	S_1820	Sb2068	Se1960	Si2881	SiO2
Line	818.326 {41}	231.604 {446}	178.284 {489}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.729	.00171	.02328	.01066	.42983	.00670	.01093	9.0852	19.442
Stddev	.262	.00008	.00005	.00115	.00604	.00321	.00356	.0153	.033
%RSD	.52719	4.4871	.20780	10.817	1.4041	47.880	32.554	.16835	.16835

#1	49.914	.00177	.02331	.01148	.43410	.00443	.00842	9.0960	19.466
#2	49.543	.00166	.02324	.00984	.42556	.00897	.01345	9.0744	19.419

Check ?	Chk Pass								
High Limit									
Low Limit									

Elem	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Line	189.989 {477}	407.771 {83}	283.730 {119}	334.904 {101}	190.856 {477}	370.152 {91}	292.402 {115}	206.200 {163}	339.198 {99}
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00025	.41876	.00768	-.00036	-.00863	W -.08501	-.00094	.00290	-.00080
Stddev	.00088	.00155	.00245	.00017	.00039	.02662	.00045	.00118	.00092
%RSD	350.02	.36926	31.938	47.614	4.5292	31.320	48.439	40.774	115.14

#1	.00087	.41985	.00594	-.00024	-.00836	-.06618	-.00062	.00207	-.00145
#2	-.00037	.41767	.00941	-.00049	-.00891	-.10383	-.00126	.00374	-.00015

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass				
High Limit						45.000			
Low Limit						-.05000			

Int. Std.	Y_2243	Y_3600	Y_3774
Line	224.306 {450}	360.073 {94}	377.433 {89}
Units	Cts/S	Cts/S	Cts/S
Avg	2899.9	51491.	5487.9
Stddev	2.4	224.	17.9
%RSD	.08382	.43420	.32666

#1	2898.2	51649.	5475.2
#2	2901.6	51333.	5500.5

Sample Name: CCVH-3304613 Acquired: 6/6/2015 3:28:10 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00444	50.745	.00266	.00760	.00015	-.00003	W .92247	.04118	-.00037	-.00107	.00086
Stddev	.00036	.358	.00478	.00058	.00048	.00006	.00541	.00057	.00008	.00018	.00061
%RSD	8.1233	.70642	179.76	7.6822	325.62	213.84	.58600	1.3846	21.663	16.454	70.626

#1	.00470	50.491	.00604	.00718	-.00019	-.00006	.92630	.04159	-.00043	-.00095	.00129
#2	.00419	50.998	-.00072	.00801	.00048	.00001	.91865	.04078	-.00031	-.00120	.00043

Check ?	None	Chk Pass	None	None	None	None	Chk Warn	None	None	None	None
Value							1.0000				
Range							-5.0000%				

Elem	Cu3247	Fe2714	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1782	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00294	47.398	.37480	.00624	-.01260	-.00176	-.00042	255.32	.00086	.00269	-.00039
Stddev	.00016	.444	.00590	.00035	.00353	.00009	.00024	1.24	.00050	.00412	.00185
%RSD	5.3906	.93634	1.5737	5.6109	28.023	4.9739	57.130	.48755	58.908	153.06	475.70

#1	-.00283	47.084	.37063	.00649	-.01010	-.00170	-.00025	254.44	.00121	.00561	.00092
#2	-.00305	47.712	.37897	.00600	-.01509	-.00182	-.00059	256.20	.00050	-.00022	-.00170

Check ?	None	Chk Pass	None	None	None	None	None	Chk Pass	None	None	None
Value											
Range											

Elem	S_1820	Sb2068	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 4.3063	-.00729	.00725	-.01206	-.02581	-.00202	.00045	5.2173	-.01653	.00037	W 10.662
Stddev	.0052	.00056	.00019	.00496	.01061	.00085	.00012	.0114	.00071	.00115	.015
%RSD	.11977	7.6549	2.6745	41.094	41.094	42.108	27.695	.21746	4.3020	307.24	.14263

#1	4.3099	-.00768	.00739	-.00856	-.01831	-.00262	.00036	5.2253	-.01703	-.00044	10.651
#2	4.3027	-.00689	.00711	-.01557	-.03331	-.00142	.00054	5.2093	-.01603	.00118	10.673

Check ?	Chk Fail	None	None	None	None	None	None	Chk Pass	None	None	Chk Warn
Value	5.0000										10.000
Range	-10.490%										5.0000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	.00334	.00153	.05222
Stddev	.00066	.00041	.00382
%RSD	19.681	26.564	7.3173

#1	.00381	.00124	.04952
#2	.00288	.00182	.05492

Check ?	None	None	None
Value			
Range			

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2896.1	51565.	5341.7
Stddev	64.4	129.	12.3
%RSD	2.2232	.24980	.23085

#1	2850.6	51474.	5350.4
#2	2941.7	51656.	5332.9

Sample Name: CCV-3305006 Acquired: 6/6/2015 3:30:46 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52870	.49287	.91207	.48045	.51068	.45755	-.00006	5.0196	.47696	.51162	F .43044	.47629
Stddev	.00040	.00325	.01486	.00275	.00149	.00195	.00220	.0061	.00448	.00617	.00020	.00339
%RSD	.07551	.65960	1.6295	.57152	.29195	.42709	3739.2	.12183	.93904	1.2069	.04755	.71084

#1	.52898	.49057	.90156	.47851	.50963	.45617	.00150	5.0240	.47379	.50725	.43058	.47869
#2	.52842	.49517	.92258	.48240	.51174	.45894	-.00162	5.0153	.48012	.51599	.43029	.47390

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass					
Value											.50000	
Range											-10.490%	

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.2849	51.622	.99292	21.146	.53117	.45611	5.1768	.51414	.94368	1.0043	.01033	.91649
Stddev	.0131	.200	.00522	.048	.00134	.00417	.0128	.00402	.00463	.0105	.00518	.00529
%RSD	.57120	.38685	.52612	.22905	.25286	.91481	.24741	.78282	.49048	1.0434	50.145	.57705

#1	2.2756	51.481	.98922	21.180	.53212	.45316	5.1858	.51129	.94041	.99684	.01399	.91275
#2	2.2941	51.763	.99661	21.111	.53022	.45906	5.1677	.51698	.94695	1.0117	.00667	.92023

Check ?	Chk Pass	None	Chk Pass									
Value												
Range												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .89105	4.6870	10.030	.91106	.47169	.00108	.52308	.92154	-.03507	.54040	.53067	.49443
Stddev	.00688	.0636	.136	.00729	.00193	.00025	.00165	.01000	.02891	.00086	.00544	.00571
%RSD	.77243	1.3573	1.3573	.79981	.40820	22.928	.31463	1.0847	82.437	.15838	1.0248	1.1542

#1	.88619	4.6420	9.9339	.90590	.47032	.00126	.52424	.91447	-.01463	.54100	.53451	.49040
#2	.89592	4.7320	10.126	.91621	.47305	.00091	.52191	.92861	-.05551	.53979	.52682	.49847

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value	1.0000											
Range	-10.490%											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	2951.3	53495.	5487.2
Stddev	20.5	94.	7.0
%RSD	.69419	.17509	.12783

#1	2965.8	53429.	5492.1
#2	2936.8	53561.	5482.2

Sample Name: CCB Acquired: 6/6/2015 3:33:16 Type: QC
 Method: 6500_025(v16) Mode: CONC Corr. Factor: 1.000000
 User: CRHOADES Prep Date: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00082	-.00069	.00141	.00625	.00021	-.00016	-.00059	-.01028	-.00030	-.00013	.00053	-.00128
Stddev	.00003	.00018	.00523	.00044	.00007	.00009	.00075	.00149	.00025	.00002	.00008	.00012
%RSD	3.4696	25.691	370.22	7.0289	33.641	54.621	126.68	14.516	85.150	11.999	14.413	9.4838

#1	.00080	-.00082	.00512	.00594	.00026	-.00022	-.00006	-.01134	-.00047	-.00012	.00048	-.00136
#2	.00084	-.00057	-.00229	.00656	.00016	-.00010	-.00113	-.00922	-.00012	-.00014	.00059	-.00119

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00067	.33484	.00731	-.00268	.00007	.00013	.12573	.00013	-.00257	-.00137	.00637	-.00048
Stddev	.00152	.00516	.00153	.00234	.00004	.00019	.01193	.00015	.00060	.00021	.00495	.00237
%RSD	228.68	1.5416	20.921	87.220	53.404	139.96	9.4912	118.68	23.319	15.525	77.714	496.63

#1	-.00174	.33119	.00623	-.00434	.00004	.00000	.11730	.00023	-.00214	-.00122	.00987	.00120
#2	.00041	.33849	.00839	-.00103	.00010	.00027	.13417	.00002	-.00299	-.00152	.00287	-.00215

Check ?	Chk Pass											
High Limit												
Low Limit												

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Ti1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .00621	-.00344	-.00736	-.00073	.00005	.00522	-.00052	.00318	-.01923	-.00054	.00020	-.00271
Stddev	.00496	.00062	.00132	.00102	.00000	.00282	.00039	.00180	.02296	.00093	.00041	.00202
%RSD	79.953	17.915	17.915	139.68	1.1278	54.100	74.768	56.514	119.38	173.26	210.17	74.483

#1	.00270	-.00387	-.00829	-.00001	.00005	.00721	-.00080	.00191	-.03547	.00012	-.00010	-.00414
#2	.00972	-.00300	-.00643	-.00146	.00005	.00322	-.00025	.00445	-.00300	-.00120	.00049	-.00128

Check ?	Chk Fail	Chk Pass										
High Limit	.00500											
Low Limit	-.00500											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3003.0	53595.	5428.8
Stddev	4.6	49.	7.9
%RSD	.15216	.09214	.14513

#1	3006.2	53630.	5434.4
#2	2999.8	53561.	5423.3

Comment:

Elem	Ag3280	Al1670	As1890	B_2089	Ba4554	Be3130	Bi2230	Ca3179	Cd2288	Co2286	Cr2055	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01112	.09954	.01098	.09796	.01027	.00081	.09789	.20231	.00461	.01001	.00929	.01310
Stddev	.00022	.00008	.00294	.00067	.00032	.00000	.00174	.00279	.00022	.00016	.00010	.00026
%RSD	1.9425	.08192	26.807	.67988	3.1014	.21455	1.7762	1.3768	4.8674	1.6351	1.1048	1.9838

#1	.01128	.09960	.01306	.09843	.01049	.00082	.09666	.20428	.00477	.00989	.00936	.01292
#2	.01097	.09948	.00890	.09749	.01004	.00081	.09912	.20034	.00445	.01012	.00922	.01329

Check ?	Chk Pass											
Value												
Range												

Elem	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782	Pb2203	S_1820	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.08939	3.4396	F .01705	.21753	.01103	.01756	1.1442	.04066	2.6958	.01153	.01066	.00877
Stddev	.00084	.0158	.00097	.00300	.00017	.00023	.0017	.00011	.0010	.00227	.00312	.00184
%RSD	.93870	.45821	5.7159	1.3789	1.5612	1.3115	.15047	.27241	.03778	19.708	29.246	20.959

#1	.08880	3.4508	.01774	.21966	.01091	.01739	1.1429	.04058	2.6950	.01313	.01286	.00747
#2	.08999	3.4285	.01636	.21541	.01115	.01772	1.1454	.04074	2.6965	.00992	.00845	.01007

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass						
Value			.01000									
Range			30.000%									

Elem	Se1960	Si2881	SiO2	Sn1899	Sr4077	Th2837	Ti3349	Tl1908	U_3701	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .02241	.47239	1.0109	.09112	.00976	.01909	.00971	.01751	.05221	.01093	.02381	.01655
Stddev	.00539	.01406	.0301	.00106	.00006	.00204	.00037	.00145	.03635	.00069	.00127	.00004
%RSD	24.038	2.9765	2.9765	1.1651	.60677	10.662	3.7735	8.2932	69.624	6.3224	5.3153	.24943

#1	.01860	.48234	1.0322	.09037	.00980	.02053	.00997	.01854	.02651	.01044	.02291	.01652
#2	.02622	.46245	.98965	.09187	.00972	.01765	.00945	.01648	.07792	.01142	.02470	.01658

Check ?	Chk Fail	Chk Pass										
Value	.01500											
Range	30.000%											

Int. Std.	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S
Avg	3069.6	54951.	5633.7
Stddev	3.5	1121.	43.7
%RSD	.11380	2.0390	.77590

#1	3067.1	55744.	5664.6
#2	3072.0	54159.	5602.7

TestAmerica Denver

ICP Data Review Checklist

73/74

TALS BATCH NUMBER: 280670/71/72/	Earliest due date: 6/8/15
Run Date: 6.5.15	Analyst: CR/SS
QC programs/Methods Run: 200.7	Instrument: ICP25
6010B/6010C/200.7	

Review Items	Yes	No	N/A	2nd Level
A. Preparation/Matrix QC				
1. LCS done per prep batch and within QC limits?	✓			✓
2. Method blank done per prep batch and < 1/2 RL or CRDL (CLP) or < 2.2x MDL 200.7?	✓			✓
3. MS run at required frequency and within limits?	✓			✓
4. MSD or DU run at required frequency and RPD within SOP limits?	✓			✓
5. Serial dilution done per prep batch (or per SDG for CLP)?	✓			✓
6. Post digest spike analyzed if required (CLP, DOD & AFCEE only)? NCM Whether needed for DODV3, DODV4, DODV5, AFCEE 4.0, 6010C?	✓			✓
B. Calibration/Instrument Run QC				
1. ICV/CCV analyzed at appropriate frequency and within control limits? (6010B: CLP = 90 - 110%; 200.7: ICV = 95 - 105%, CCV 90-110%) If not in control, was the ICV or CCV reanalyzed twice to show return to control as per NELAP?	✓			✓
2. ICB/CCB analyzed at appropriate frequency and < 1/2 RL or < 2X MDL (DOD V3, AFCEE 4.0)? Was it less than the LODV (DODV4 & DODV5)	✓			✓
3. High Standard (HIGH) reanalyzed before samples and recovered within QC limits? (+5%)	✓			✓
4. RL STD run and recovered within QC limits? (± 50% for non-CLP, ± 20% for DoD V3 / DoD V4 / DoD V5 / AFCEE 4.0 / USACE)	✓			✓
5. Was the LLICV/LLCCV analyzed at appropriate frequency for 6010C and within control (+30 % or +20%)	✓			✓
6. ICSA/ICSAB run at required frequency and within SOP limits? (ICSA < 2X MDL AFCEE 4.0, DOD V3 or < RL std work or < 2X RL 6010C, DOD V4, DOD V5)	✓			✓
C. Sample Results				
1. For 6010B, were samples with concentrations > the linear range for any parameter diluted and reanalyzed? For 200.7, were samples with concentrations within 90% of the linear range diluted and reanalyzed?	✓			✓
2. For DOD, were samples with concentrations > the daily linear range for any parameter diluted and reanalyzed?	✓			✓
3. Are all reported results bracketed by in control QC?	✓			✓
D. Other				
1. Are all nonconformances documented appropriately?	✓			✓
2. Calculations checked for errors?	✓			✓
3. Transcriptions checked for errors? (Example: Are dilution factors that are entered into the sequence log correct?)	✓			✓
4. All client/project specific requirements met?	✓			✓
5. Date/time of analysis verified as correct?	✓			✓
6. PDF attached, verified uncorrupted?	✓			✓

Analyst: SS Date: 6/6/15

Comments: _____

2nd Level Reviewer: [Signature] Date: 6/8/15

Comments: _____

METALS BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Batch Number: 279404 Batch Start Date: 05/29/15 14:45 Batch Analyst: Sexton, Michael L

Batch Method: 3010A Batch End Date: 05/29/15 19:45

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	ICP SPK 2B 00025	ICP SPK 3A 00097	
MB 280-279404/1		3010A, 6010C			50 mL	50 mL			
LCS 280-279404/2		3010A, 6010C			50 mL	50 mL	0.5 mL	0.5 mL	
280-69589-C-2	54400-MW54-0515	3010A, 6010C	T	<2	50 mL	50 mL			
280-69589-C-2	54400-MW54-0515	3010A, 6010C	T	<2	50 mL	50 mL	0.5 mL	0.5 mL	
MS 280-69589-C-2	54400-MW54-0515	3010A, 6010C	T	<2	50 mL	50 mL	0.5 mL	0.5 mL	
MSD									

Batch Notes	
Lot # of hydrochloric acid	0000102133-05/19
Lot # of Nitric Acid	0000042514-05/27
Hot Block ID number	03
Oven, Bath or Block Temperature 1	91 Degrees C
Oven, Bath or Block Temperature 2	95 Degrees C
Pipette ID	MET-89
ID number of the thermometer	QA-3+
Digestion Tube/Cup Lot #	1408268
Uncorrected Temperature	91 Degrees C
Uncorrected Temperature 2	95 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Batch Number: 280173 Batch Start Date: 06/04/15 09:00 Batch Analyst: Ramirez, Santiago U

Batch Method: 3005A Batch End Date: 06/04/15 14:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	ICP SPK 2B 00025	ICP SPK 3A 00097	
MB 280-280173/1		3005A, 6010C			50 mL	50 mL			
LCS 280-280173/2		3005A, 6010C			50 mL	50 mL	0.5 mL	0.5 mL	
280-69589-B-2	54400-MW54-0515	3005A, 6010C	D	<2	50 mL	50 mL			
280-69589-B-2 MS	54400-MW54-0515	3005A, 6010C	D	<2	50 mL	50 mL	0.5 mL	0.5 mL	
280-69589-B-2 MSD	54400-MW54-0515	3005A, 6010C	D	<2	50 mL	50 mL	0.5 mL	0.5 mL	

Batch Notes	
Lot # of hydrochloric acid	0000102133-05/19
Lot # of Nitric Acid	0000042514-05/27
Hot Block ID number	05
Oven, Bath or Block Temperature 1	94
Oven, Bath or Block Temperature 2	91
Pipette ID	MET-89
ID number of the thermometer	MT2050
Digestion Tube/Cup Lot #	1501179
Uncorrected Temperature	93 Celsius
Uncorrected Temperature 2	90 Celsius

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job Number: 280-69589-1

SDG No.: _____

Project: GSI - McConnell AFB (SWMU207 - Boeing)

Client Sample ID	Lab Sample ID
<u>54400-MW54-0515</u>	<u>280-69589-2</u>
<u>54401-MW54-0515</u>	<u>280-69589-3</u>

Comments:

1B-IN
 INORGANIC ANALYSIS DATA SHEET
 GENERAL CHEMISTRY

Client Sample ID: 54400-MW54-0515

Lab Sample ID: 280-69589-2

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG ID.:

Matrix: Water

Date Sampled: 05/20/2015 16:20

Reporting Basis: WET

Date Received: 05/21/2015 07:10

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Chromium, hexavalent	0.0040	0.020	0.0040	0.0040	mg/L	U		1	7196A
Nitrate as N	0.95	0.50	0.10	0.042	mg/L			1	9056
Nitrite as N	0.10	0.50	0.10	0.049	mg/L	U		1	9056
Chloride	22	3.0	0.50	0.25	mg/L			1	9056A
Sulfate	20	5.0	0.50	0.23	mg/L			1	9056A
Alkalinity	320	5.0	3.2	1.1	mg/L			1	SM 2320B
Bicarbonate Alkalinity as CaCO3	320	5.0	3.2	1.1	mg/L			1	SM 2320B
Carbonate Alkalinity as CaCO3	3.2	5.0	3.2	1.1	mg/L	U		1	SM 2320B
Total Dissolved Solids (TDS)	440	10	10	4.7	mg/L			1	SM 2540C

1B-IN
 INORGANIC ANALYSIS DATA SHEET
 GENERAL CHEMISTRY

Client Sample ID: 54401-MW54-0515

Lab Sample ID: 280-69589-3

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG ID.:

Matrix: Water

Date Sampled: 05/20/2015 16:20

Reporting Basis: WET

Date Received: 05/21/2015 07:10

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Chromium, hexavalent	0.0040	0.020	0.0040	0.0040	mg/L	U		1	7196A

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-69589-1
SDG No.: _____
Analyst: SVC Batch Start Date: 05/21/2015
Reporting Units: mg/L Analytical Batch No.: 278571

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
6	ICV	11:19	Chromium, hexavalent	0.0492	0.0500	98	90-110		CR6 ICV int_00898
7	ICB	11:19	Chromium, hexavalent	0.0040				U	
16	CCV	11:19	Chromium, hexavalent	0.103	0.100	103	90-110		CR6 ICV int_00898
17	CCB	11:19	Chromium, hexavalent	0.0040				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

2-IN
 CALIBRATION QUALITY CONTROL
 GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Analyst: TLP Batch Start Date: 05/21/2015
 Reporting Units: mg/L Analytical Batch No.: 278518

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	09:45	Nitrate as N	3.83	4.00	96	90-110		IC ICV 5_00077
			Nitrite as N	3.65	4.00	91	90-110		IC ICV 5_00077
2	ICB	10:04	Nitrate as N	0.10				U	
			Nitrite as N	0.10				U	
17	CCV	17:31	Nitrate as N	4.96	5.00	99	90-110		IC LCS_00266
			Nitrite as N	4.93	5.00	99	90-110		IC LCS_00266
18	CCB	17:50	Nitrate as N	0.10				U	
			Nitrite as N	0.10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

2-IN
 CALIBRATION QUALITY CONTROL
 GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Analyst: TLP Batch Start Date: 05/21/2015
 Reporting Units: mg/L Analytical Batch No.: 278519

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	09:45	Chloride	80.9	80.0	101	90-110		IC CL ICV_00010
			Sulfate	77.2	80.0	97	90-110		IC SO4 ICV_00014
2	ICB	10:04	Chloride	0.697				J	
			Sulfate	0.50				U	
17	CCV	17:31	Chloride	99.5	100	100	90-110		IC LCS_00266
			Sulfate	97.5	100	98	90-110		IC LCS_00266
18	CCB	17:50	Chloride	0.714				J	
			Sulfate	0.662				J	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

2-IN
 CALIBRATION QUALITY CONTROL
 GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-69589-1
 SDG No.: _____
 Analyst: CCJ Batch Start Date: 05/27/2015
 Reporting Units: mg/L Analytical Batch No.: 279244

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
29	CCV	14:14	Alkalinity	203	200	101	90-110		Alk daily lcs 00473
30	CCB	14:18	Alkalinity	3.2				U	
44	CCV	15:31	Alkalinity	208	200	104	90-110		Alk daily lcs 00473
45	CCB	15:34	Alkalinity	3.2				U	
56	CCV	16:31	Alkalinity	200	200	100	90-110		Alk daily lcs 00473
57	CCB	16:35	Alkalinity	3.2				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG No.: _____

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 278571 Date: 05/21/2015 11:19							
7196A	MB 280-278571/10	Chromium, hexavalent	0.0040	U	mg/L	0.020	1
Batch ID: 278518 Date: 05/21/2015 11:24							
9056	MB 280-278518/6	Nitrate as N	0.10	U	mg/L	0.50	1
9056	MB 280-278518/6	Nitrite as N	0.10	U	mg/L	0.50	1
Batch ID: 278519 Date: 05/21/2015 11:24							
9056A	MB 280-278519/6	Chloride	0.702	J	mg/L	3.0	1
9056A	MB 280-278519/6	Sulfate	0.50	U	mg/L	5.0	1
Batch ID: 279244 Date: 05/27/2015 14:32							
SM 2320B	MB 280-279244/33	Alkalinity	3.2	U	mg/L	5.0	1
SM 2320B	MB 280-279244/33	Bicarbonate Alkalinity as CaCO3	3.2	U	mg/L	5.0	1
SM 2320B	MB 280-279244/33	Carbonate Alkalinity as CaCO3	3.2	U	mg/L	5.0	1
Batch ID: 279061 Date: 05/26/2015 14:12							
SM 2540C	MB 280-279061/1	Total Dissolved Solids (TDS)	10	U	mg/L	10	1

5-IN
 MATRIX SPIKE SAMPLE RECOVERY
 GENERAL CHEMISTRY

Lab Name: TestAmerica Denver

Job No.: 280-69589-1

SDG No.: _____

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 278571 Date: 05/21/2015 11:19											
7196A	280-69589-2	Chromium, hexavalent	0.0040	U	mg/L						
7196A	280-69589-2	Chromium, hexavalent	0.106		mg/L	0.100	106	90-111			
MS											
Batch ID: 278518 Date: 05/21/2015 14:51											
9056	280-69589-2	Nitrate as N	0.95		mg/L						
9056	280-69589-2	Nitrate as N	5.99		mg/L	5.00	101	88-111			
MS											
9056	280-69589-2	Nitrite as N	0.10	U	mg/L						
9056	280-69589-2	Nitrite as N	4.72		mg/L	5.00	94	87-111			
MS											
Batch ID: 278519 Date: 05/21/2015 14:51											
9056A	280-69589-2	Chloride	22		mg/L						
9056A	280-69589-2	Chloride	47.4		mg/L	25.0	103	87-111			
MS											
9056A	280-69589-2	Sulfate	20		mg/L						
9056A	280-69589-2	Sulfate	43.6		mg/L	25.0	95	87-112			
MS											

Calculations are performed before rounding to avoid round-off errors in calculated results.

5-IN
 MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
 GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 278571 Date: 05/21/2015 11:19											
7196A	280-69589-2	Chromium, hexavalent	0.108		mg/L	0.100	108	90-111	2	20	
MSD											
Batch ID: 278518 Date: 05/21/2015 15:11											
9056	280-69589-2	Nitrate as N	5.97		mg/L	5.00	101	88-111	0	10	
MSD											
9056	280-69589-2	Nitrite as N	4.80		mg/L	5.00	96	87-111	2	10	
MSD											
Batch ID: 278519 Date: 05/21/2015 15:11											
9056A	280-69589-2	Chloride	47.4		mg/L	25.0	103	87-111	0	10	
MSD											
9056A	280-69589-2	Sulfate	43.5		mg/L	25.0	95	87-112	0	10	
MSD											

Calculations are performed before rounding to avoid round-off errors in calculated results.

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 278571 Date: 05/21/2015 11:19								
7196A	54400-MW54-0515	280-69589-2	Chromium, hexavalent	0.0040	mg/L			U
7196A	54400-MW54-0515	280-69589-2 DU	Chromium, hexavalent	0.0040	mg/L	NC	20	U
Batch ID: 278518 Date: 05/21/2015 14:31								
9056	54400-MW54-0515	280-69589-2	Nitrate as N	0.95	mg/L			
9056	54400-MW54-0515	280-69589-2 DU	Nitrate as N	0.946	mg/L	0.3	10	
9056	54400-MW54-0515	280-69589-2	Nitrite as N	0.10	mg/L			U
9056	54400-MW54-0515	280-69589-2 DU	Nitrite as N	0.10	mg/L	NC	10	U
Batch ID: 278519 Date: 05/21/2015 14:31								
9056A	54400-MW54-0515	280-69589-2	Chloride	22	mg/L			
9056A	54400-MW54-0515	280-69589-2 DU	Chloride	21.7	mg/L	0.4	10	
9056A	54400-MW54-0515	280-69589-2	Sulfate	20	mg/L			
9056A	54400-MW54-0515	280-69589-2 DU	Sulfate	19.9	mg/L	0.4	10	
Batch ID: 279061 Date: 05/26/2015 14:12								
SM 2540C	54400-MW54-0515	280-69589-2	Total Dissolved Solids (TDS)	440	mg/L			
SM 2540C	54400-MW54-0515	280-69589-2 DU	Total Dissolved Solids (TDS)	432	mg/L	2	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 278571 Date: 05/21/2015 11:19											
						LCS Source: CR6 spike sou_00513					
7196A	LCS 280-278571/8	Chromium, hexavalent	0.0992		mg/L	0.100	99	90-111	3	20	
Batch ID: 278518 Date: 05/21/2015 10:44											
						LCS Source: IC LCS_00266					
9056	LCS 280-278518/4	Nitrate as N	4.91		mg/L	5.00	98	88-111	0	10	
9056	LCS 280-278518/4	Nitrite as N	4.93		mg/L	5.00	99	87-111	1	10	
Batch ID: 278519 Date: 05/21/2015 10:44											
						LCS Source: IC LCS_00266					
9056A	LCS 280-278519/4	Chloride	99.2		mg/L	100	99	87-111	0	10	
9056A	LCS 280-278519/4	Sulfate	96.5		mg/L	100	96	87-112	0	10	
Batch ID: 279244 Date: 05/27/2015 14:23											
						LCS Source: Alk daily lcs_00473					
SM 2320B	LCS 280-279244/31	Alkalinity	201		mg/L	200	100	90-110	0	10	
Batch ID: 279061 Date: 05/26/2015 14:12											
						LCS Source: TDS LCS_00536_00055					
SM 2540C	LCS 280-279061/2	Total Dissolved Solids (TDS)	507		mg/L	501	101	86-110	2	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

7A-IN
 LAB CONTROL SAMPLE DUPLICATE
 GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 278571 Date: 05/21/2015 11:19											
						LCSD Source: CR6 spike sou_00513					
7196A	LCSD 280-278571/9	Chromium, hexavalent	0.102		mg/L	0.100	102	90-111	3	20	
Batch ID: 278518 Date: 05/21/2015 11:04											
						LCSD Source: IC LCS_00266					
9056	LCSD 280-278518/5	Nitrate as N	4.92		mg/L	5.00	98	88-111	0	10	
9056	LCSD 280-278518/5	Nitrite as N	4.99		mg/L	5.00	100	87-111	1	10	
Batch ID: 278519 Date: 05/21/2015 11:04											
						LCSD Source: IC LCS_00266					
9056A	LCSD 280-278519/5	Chloride	99.1		mg/L	100	99	87-111	0	10	
9056A	LCSD 280-278519/5	Sulfate	96.2		mg/L	100	96	87-112	0	10	
Batch ID: 279244 Date: 05/27/2015 14:28											
						LCSD Source: Alk daily lcs_00473					
SM 2320B	LCSD 280-279244/32	Alkalinity	201		mg/L	200	100	90-110	0	10	
Batch ID: 279061 Date: 05/26/2015 14:12											
						LCSD Source: TDS LCS_00536_00055					
SM 2540C	LCSD 280-279061/3	Total Dissolved Solids (TDS)	497		mg/L	501	99	86-110	2	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

7A-IN
 METHOD REPORTING LIMIT CHECK
 GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 278518 Date: 05/21/2015 10:24			LCS Source: IC Cal low_00087								
9056	MRL 280-278518/3	Nitrate as N	0.225	J	mg/L	0.200	113	50-150			
9056	MRL 280-278518/3	Nitrite as N	0.237	J	mg/L	0.200	119	50-150			
Batch ID: 278519 Date: 05/21/2015 10:24			LCS Source: IC CAL cl/so4_00049								
9056A	MRL 280-278519/3	Chloride	2.35	J	mg/L	2.50	94	50-150			
9056A	MRL 280-278519/3	Sulfate	2.46	J	mg/L	2.50	98	50-150			

Calculations are performed before rounding to avoid round-off errors in calculated results.

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver

Job Number: 280-69589-1

SDG Number: _____

Matrix: Water

Instrument ID: WC_HSPEC_7196

Method: 7196A

DL Date: 02/16/2014 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Chromium, hexavalent		0.02	0.004

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job Number: 280-69589-1
SDG Number: _____
Matrix: Water Instrument ID: WC_HSPEC_7196
Method: 7196A XMDL Date: 05/16/2013 14:49

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Chromium, hexavalent		0.02	0.004

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver

Job Number: 280-69589-1

SDG Number: _____

Matrix: Water

Instrument ID: WC_IonChrom11

Method: 9056

DL Date: 02/16/2014 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Nitrate as N		0.5	0.042
Nitrite as N		0.5	0.049

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver

Job Number: 280-69589-1

SDG Number: _____

Matrix: Water

Instrument ID: WC_IonChrom11

Method: 9056

XMDL Date: 02/16/2014 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Nitrate as N		0.5	0.042
Nitrite as N		0.5	0.049

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver

Job Number: 280-69589-1

SDG Number: _____

Matrix: Water

Instrument ID: WC_IonChrom11

Method: 9056A

DL Date: 02/16/2014 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Chloride		3	0.254
Sulfate		5	0.232

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job Number: 280-69589-1
SDG Number: _____
Matrix: Water Instrument ID: WC_IonChrom11
Method: 9056A XMDL Date: 02/16/2014 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Chloride		3	0.254
Sulfate		5	0.232

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver

Job Number: 280-69589-1

SDG Number: _____

Matrix: Water

Instrument ID: WC-AT3

Method: SM 2320B

DL Date: 03/28/2011 12:06

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Alkalinity		5	1.07
Bicarbonate Alkalinity as CaCO ₃		5	1.07
Carbonate Alkalinity as CaCO ₃		5	1.07

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver

Job Number: 280-69589-1

SDG Number: _____

Matrix: Water

Instrument ID: WC-AT3

Method: SM 2320B

XMDL Date: 03/28/2011 12:06

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		5	1.07
Bicarbonate Alkalinity as CaCO3		5	1.07
Carbonate Alkalinity as CaCO3		5	1.07

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver

Job Number: 280-69589-1

SDG Number: _____

Matrix: Water

Instrument ID: WC_Cond_Orion

Method: SM 2540C

DL Date: 10/07/2011 10:03

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Total Dissolved Solids (TDS)		10	4.7

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job Number: 280-69589-1
SDG Number: _____
Matrix: Water Instrument ID: WC_Cond_Orion
Method: SM 2540C XMDL Date: 10/11/2010 11:58

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Dissolved Solids (TDS)		10	4.7

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Instrument ID: WC_HSPEC_7196 Method: 7196A

Start Date: 05/21/2015 11:19 End Date: 05/21/2015 11:19

Lab Sample ID	D / F	T y p e	Time	Analytes															
				C r 6															
IC 280-278571/1			11:19	X															
IC 280-278571/2			11:19	X															
IC 280-278571/3			11:19	X															
IC 280-278571/4			11:19	X															
IC 280-278571/5			11:19	X															
ICV 280-278571/6	1		11:19	X															
ICB 280-278571/7	1		11:19	X															
LCS 280-278571/8	1	T	11:19	X															
LCSD 280-278571/9	1	T	11:19	X															
MB 280-278571/10	1	T	11:19	X															
280-69589-2	1	T	11:19	X															
280-69589-2 DU	1	T	11:19	X															
280-69589-2 MS	1	T	11:19	X															
280-69589-2 MSD	1	T	11:19	X															
280-69589-3	1	T	11:19	X															
CCV 280-278571/16	1		11:19	X															
CCB 280-278571/17	1		11:19	X															
ZZZZZZ			11:19																
ZZZZZZ			11:19																
ZZZZZZ			11:19																

Prep Types
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Instrument ID: WC_IonChrom11 Method: 9056A

Start Date: 05/21/2015 09:45 End Date: 05/22/2015 01:09

Lab Sample ID	D / F	Type	Time	Analytes															
				C L -	S O 4														
ICV 280-278519/1	1		09:45	X	X														
ICB 280-278519/2	1		10:04	X	X														
MRL 280-278519/3	1	T	10:24	X	X														
LCS 280-278519/4	1	T	10:44	X	X														
LCSD 280-278519/5	1	T	11:04	X	X														
MB 280-278519/6	1	T	11:24	X	X														
280-69589-2	1	T	14:12	X	X														
280-69589-2 DU	1	T	14:31	X	X														
280-69589-2 MS	1	T	14:51	X	X														
280-69589-2 MSD	1	T	15:11	X	X														
ZZZZZZ			15:31																
ZZZZZZ			15:51																
ZZZZZZ			16:11																
ZZZZZZ			16:31																
ZZZZZZ			16:51																
ZZZZZZ			17:11																
CCV 280-278519/17	1		17:31	X	X														
CCB 280-278519/18	1		17:50	X	X														
ZZZZZZ			18:10																
ZZZZZZ			18:30																
ZZZZZZ			18:50																
ZZZZZZ			19:10																
ZZZZZZ			19:30																
ZZZZZZ			19:50																
ZZZZZZ			20:10																
ZZZZZZ			20:30																
CCV 280-278519/27			20:50																
CCB 280-278519/28			21:10																
ZZZZZZ			21:30																
ZZZZZZ			21:50																
ZZZZZZ			22:10																
ZZZZZZ			22:30																
ZZZZZZ			22:49																
ZZZZZZ			23:09																
ZZZZZZ			23:29																
ZZZZZZ			23:49																
ZZZZZZ			00:09																
ZZZZZZ			00:29																
CCV 280-278519/39			00:49																
CCB 280-278519/40			01:09																

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Instrument ID: WC_IonChrom11 Method: 9056A

Start Date: 05/21/2015 09:45 End Date: 05/22/2015 01:09

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Instrument ID: WC-AT3 Method: SM 2320B

Start Date: 05/27/2015 11:59 End Date: 05/27/2015 17:41

Lab Sample ID	D / F	Type	Time	Analytes															
				A l k	B A L K C C	C a r A l k													
ZZZZZZ			15:25																
CCV3 280-279244/44	1		15:31	X															
CCB3 280-279244/45	1		15:34	X															
ZZZZZZ			15:41																
ZZZZZZ			15:50																
ZZZZZZ			15:57																
280-69589-2	1	T	16:01	X	X	X													
ZZZZZZ			16:06																
ZZZZZZ			16:10																
ZZZZZZ			16:14																
ZZZZZZ			16:19																
ZZZZZZ			16:23																
ZZZZZZ			16:26																
CCV4 280-279244/56	1		16:31	X															
CCB4 280-279244/57	1		16:35	X															
ZZZZZZ			16:40																
ZZZZZZ			16:45																
ZZZZZZ			16:49																
ZZZZZZ			16:53																
ZZZZZZ			16:57																
ZZZZZZ			17:01																
ZZZZZZ			17:06																
ZZZZZZ			17:10																
ZZZZZZ			17:15																
ZZZZZZ			17:19																
ZZZZZZ			17:22																
ZZZZZZ			17:27																
ZZZZZZ			17:32																
CCV5 280-279244/71			17:37																
CCB5 280-279244/72			17:41																

Prep Types
T = Total/NA

Data Review Checklist – Calibration Methods

Method(s): 7196A	Instrument: Spec	Run Date: 5/21/15	Analyst Initials: SUC	SOP #: WC-0021
Prep Batch(s):		Analytical Batch: 278571		

A. Calibration/Instrument Run QC	Yes	No	N/A	2nd
Minimum of five standards in ICAL or as specified in SOP?	✓			
Correlation coefficient ≥ 0.995 ?	✓			
Second-source ICV analyzed, and recovery within acceptance limits?	✓			
ICB analyzed immediately after the ICV & results < the RL	✓			
CCV analyzed after every ten samples & recovery within acceptance limits?	✓			
CCB analyzed after every CCV & results < RL?	✓			
Absolute value of the x intercept is < ± ½ the RL?	✓			
Elution order verified? (anions)			✓	
Were manual integrations performed correctly and properly documented? (anions)			✓	
B. Sample Results				
All samples greater than highest calibration standard diluted and reanalyzed?			✓	
Do associated RLs/MDLs reflect dilutions or limited sample volume?	✓			
All reported results bracketed by in control CCV results?	✓			
Sample analyses done within holding time? If no, create HTV NCM. NCM #	✓			
Are any results over calibration range? If reported, are results E flagged?		✓		
Are J values the result of over dilution?	✓	✓		
Client requirements reviewed and met?	✓			
Were data manually transcribed from instrument printouts or benchsheets into TALS verified 100% including dilution factors, significant figures and correct units? (If Applicable)	✓			
Do the prep and analysis dates in TALS reflect the actual dates?	✓			
Were peak assignments verified? (anions)			✓	
Were manual integrations performed correctly and properly documented? (anions)			✓	
C. Preparation/Matrix QC				
Method blank < ½ RL or all reported samples > 10x blank have NCM? - (COD, Phenol MB <RL)	✓			
Method blank < ½ RL or NCM provided? - (COD, Phenol MB <RL)	✓			
LCS/LCSD run for batch and within QC limits?	✓			
MS/MSD run at required frequency? Verify that MS/MSD failures are matrix issues and not analytical issues such as not spiking or not applying the appropriate dilution.	✓			
DUP run at required frequency?	✓			

Menu or Tab	Check	1 st	2 nd
Analyst Desktop	Create or open batch		
View Batch Info	Confirm all fields are populated	✓	
	Edit Analyst ID as is appropriate	✓	
Run log	Verify the correct samples and QC are run at the correct frequency (i.e., 10 samples per CCV)	✓	
Sample List	Confirm all Graphics have been uploaded (IC only)	N/A	N/A
	In edit mode, If prompted to process samples, select "Yes"	✓	
	Confirm samples are identified (Blue P Icon)	✓	
	Confirm correct analysis date and time are listed	✓	
	Confirm samples have the correct dilution factors. TOC – Check for manual dilutions not entered into instrument run log, Auto dilutions (Aut. Dil.) and Injections volume (Inj. Vol.)	✓	
	Confirm samples have the correct method chain assigned	✓	
	Confirm that solid samples have the % moisture listed	N/A	N/A
Worksheet	Populate all appropriate fields in the worksheet. Initial Amount, Final Amount, pH, etc.	✓	
Reagents	Confirm reagents are correct and properly associated with QC samples. Confirm that reagent amounts are correct. If reagents are new, verify that the correct COA has been attached to the source standard	✓	
Results	Check for special instructions (Login, Method and Sample comments) - red notebook icon	✓	
	Check for any QC failures	✓	
	Set status for samples based on QC and sample results info (i.e., set to primary analysis with passing QC or reject samples without passing QC or samples that are over-range).	✓	
	Address any results that are reported without passing QC with an NCM	✓	
QC Links	Confirm QC links are correct	✓	
Hist. Data Check	Check historical data. Print charts for outliers. Take corrective action as is appropriate	✓	
Sample List	Re-calculate data and set to appropriate review status (1 st or 2 nd level review)	✓	
	Scan and attach raw data & save batch	✓	

Analyst: Scott Cherry	Date: 05/22/15	2nd Level Reviewer: Carter M. M. M.	Date: 5/22/15
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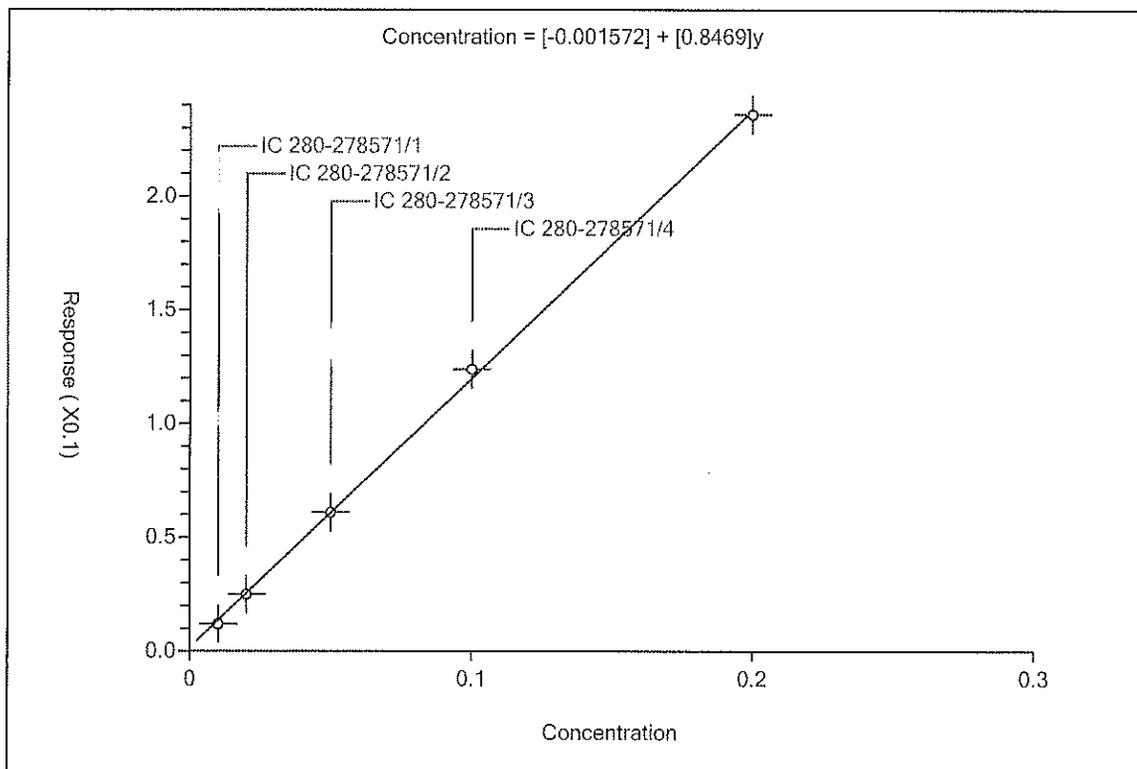
Calibration

Calib 278571-0 / Cr (VI)

Curve Type: Linear
 Weighting: None
 Origin: None
 Dependency: Concentration
 Calib Mode: ESTD
 RF Rounding: 0

Curve Coefficients	
Intercept:	-0.001572
Slope:	0.8469
Error Coefficients	
Standard Error:	0.002374
Relative Standard Error:	8.470
Correlation Coefficient:	0.9996
Coefficient of Determination (Adjusted):	0.9993 (0.9993)

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-278571/1	0.01	0.012			1.2	Y
2	IC 280-278571/2	0.02	0.025			1.25	Y
3	IC 280-278571/3	0.05	0.061			1.22	Y
4	IC 280-278571/4	0.1	0.124			1.24	Y
5	IC 280-278571/5	0.2	0.236			1.18	Y



TALS Raw Data Report

Job Number: 280-69589-1
 LIMS Batch: 278571
 Equipment: WC_HSPEC_7196

Laboratory: TestAmerica Denver

RS#	Lab ID	Inj Date	Dil	Meth				
6	ICV 280-278571/6	5/21/2015 11:19:16AM	1.0	7196A_DOD5				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.060	0.04924200 mg/L	mg/L	98	90	110	
7	ICB 280-278571/7	5/21/2015 11:19:16AM	1.0	7196A_DOD5				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.000	0.01572000 mg/L	.0040 U mg/L				
8	LCS 280-278571/8	5/21/2015 11:19:16AM	1.0	7196A_DOD5				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.119	0.09920910 mg/L	mg/L	99	90	111	
9	LCSD 280-278571/9	5/21/2015 11:19:16AM	1.0	7196A_DOD5				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.122	0.1017498 mg/L	mg/L	102	90	111	3 20
10	MB 280-278571/10	5/21/2015 11:19:16AM	1.0	7196A_DOD5				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.001	0.00725100 mg/L	.0040 U mg/L				
11	280-69589-E-2	5/21/2015 11:19:16AM	1.0	7196A_DOD5				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.0060	0.03509400 mg/L	.0040 U mg/L				
12	280-69589-E-2 DU	5/21/2015 11:19:16AM	1.0	7196A_DOD5				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.0060	0.03509400 mg/L	.0040 U mg/L				NC 20
13	280-69589-E-2 MS	5/21/2015 11:19:16AM	1.0	7196A_DOD5				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.1270	0.10598430 mg/L	mg/L	106	90	111	
14	280-69589-E-2 MSD	5/21/2015 11:19:16AM	1.0	7196A_DOD5				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.1290	0.10767810 mg/L	mg/L	108	90	111	2 20
15	280-69589-A-3	5/21/2015 11:19:16AM	1.0	7196A_DOD5				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.0040	0.01815600 mg/L	.0040 U mg/L				
16	CCV 280-278571/16	5/21/2015 11:19:16AM	1.0	7196A_DOD5				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.124	0.1034436 mg/L	mg/L	103	90	110	
17	CCB 280-278571/17	5/21/2015 11:19:16AM	1.0	7196A_DOD5				
	Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
	Cr (VI)	0.000	0.01572000 mg/L	.0040 U mg/L				

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\Anions_IC11.m

Instrument: WC_IonChrom11

Lims Location: 280

Lock State: Unlocked

Cpnd Order: Retention Time

Integrator: Falcon

Last Modified: 13-May-2015 08:33:16

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b

Inj Date : 12-May-2015 10:50:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

Compound	Wet - Anions				Wet - Anions 28D			
	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride	-102909	1450431		0.999	-102909	1450431		0.999
2 Chloride	-980707	1430168		0.998	-980707	1430168		0.998
3 Nitrite as N	-167423	2245335		0.999	-167423	2245335		0.999
4 Bromide	-149341	4102336		1.000	-149341	4102336		1.000
5 Nitrate as N	-117536	2595966		0.999	-117536	2595966		0.999
7 Orthophosphate as P	-906667	8440322		0.999	-906667	8440322		0.999
6 Sulfate	-515131	9017913		0.996	-515131	9017913		0.996

Data Review Checklist – Calibration Methods

Method(s): 300/9056		Instrument: ICI	Run Date: 5/12/15	Analyst Initials: TP/AM	SOP #: WC-0020
		Prep Batch(s): NA	Analytical Batch: 277037-277038		
A. Calibration/Instrument Run QC					
					Yes No N/A 2nd
Minimum of five standards in ICAL or as specified in SOP?					X
Correlation coefficient ≥ 0.995 ?					X
Second-source ICV analyzed, and recovery within acceptance limits?					X
ICB analyzed immediately after the ICV & results < the RL					X
CCV analyzed after every ten samples & recovery within acceptance limits?					X
CCB analyzed after every CCV & results < RL?					X
Absolute value of the x intercept is < ± ½ the RL?					X
Elution order verified? (anions)					X
Were manual integrations performed correctly and properly documented? (anions)					X
B. Sample Results					
All samples greater than highest calibration standard diluted and reanalyzed?					X
Do associated RLs/MDLs reflect dilutions or limited sample volume?					X
All reported results bracketed by in control CCV results?					X
Sample analyses done within holding time? If no, create HTV NCM. NCM #					X
Are any results over calibration range? If reported, are results E flagged?					X
Are J values the result of over dilution?					X
Client requirements reviewed and met?					X
Were data manually transcribed from instrument printouts or benchsheets into TALS verified 100% including dilution factors, significant figures and correct units? (If Applicable)					X
Do the prep and analysis dates in TALS reflect the actual dates?					X
Were peak assignments verified? (anions)					X
Were manual integrations performed correctly and properly documented? (anions)					X
C. Preparation/Matrix QC					
Method blank < ½ RL or all reported samples > 10x blank have NCM? - (COD, Phenol MB <RL)					X
Method blank < ½ RL or NCM provided? - (COD, Phenol MB <RL)					X
LCS/LCSD run for batch and within QC limits?					X
MS/MSD run at required frequency? Verify that MS/MSD failures are matrix issues and not analytical issues such as not spiking or not applying the appropriate dilution.					X
DUP run at required frequency?					X
Menu or Tab	Check				1 st 2 nd
Analyst Desktop	Create or open batch				X
View Batch Info	Confirm all fields are populated				X
	Edit Analyst ID as is appropriate				X
Run log	Verify the correct samples and QC are run at the correct frequency (i.e., 10 samples per CCV)				X
Sample List	Confirm all Graphics have been uploaded (IC only)				X
	In edit mode, If prompted to process samples, select "Yes"				X
	Confirm samples are identified (Blue P icon)				X
	Confirm correct analysis date and time are listed				X
	Confirm samples have the correct dilution factors. TOC – Check for manual dilutions not entered into instrument run log, Auto dilutions (Aut. Dil.) and Injections volume (Inj. Vol.)				X
	Confirm samples have the correct method chain assigned				X
	Confirm that solid samples have the % moisture listed				NA
Worksheet	Populate all appropriate fields in the worksheet. Initial Amount, Final Amount, pH, etc.				X
Reagents	Confirm reagents are correct and properly associated with QC samples. Confirm that reagent amounts are correct. If reagents are new, verify that the correct COA has been attached to the source standard				X
Results	Check for special instructions (Login, Method and Sample comments) - red notebook icon				X
	Check for any QC failures				X
	Set status for samples based on QC and sample results info (i.e., set to primary analysis with passing QC or reject samples without passing QC or samples that are over-range).				X
	Address any results that are reported without passing QC with an NCM				X
QC Links	Confirm QC links are correct				X
Hist. Data Check	Check historical data. Print charts for outliers. Take corrective action as is appropriate				X
Sample List	Re-calculate data and set to appropriate review status (1 st or 2 nd level review)				X
	Scan and attach raw data & save batch				X
Analyst: <i>[Signature]</i>	Date: 5/13/15	2nd Level Reviewer: TP	Date: 05/13/15		

TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0002.d
 Lims ID: std L1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 12-May-2015 10:50:00 ALS Bottle#: 0 Worklist Smp#: 2
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0034924-002
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 13-May-2015 08:12:18 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK022

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.625	2.450	2.942	228227	0.82	11.97		
3.634	3.450	4.125	2216086	7.95	10.69		1 Fluoride
5.259	4.959	5.684	9101649	32.63	9.38		2 Chloride
6.367	6.042	6.867	3480115	12.48	12.36		3 Nitrite as N
8.292	8.050	8.709	689335	2.47	15.15		4 Bromide
9.800	9.359	10.475	4769383	17.10	20.23		5 Nitrate as N
11.992	11.642	12.575	1023233	3.67	24.90		7 Orthophosphate as P
14.559	13.992	15.284	6383321	22.89	27.96		6 Sulfate
			27891349			Totals	

Total Unknown Area% = 0.82

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0002.d
 Lims ID: std L1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 12-May-2015 10:50:00 ALS Bottle#: 0 Worklist Smp#: 2
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0034924-002
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 13-May-2015 08:12:18 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.634	3.634	0.000	2216086	0.2000	0.2237	
2 Chloride	5.259	5.375	-0.116	9101649	1.00	1.32	
3 Nitrite as N	6.367	6.350	0.017	3480115	0.2000	0.2296	
4 Bromide	8.292	8.225	0.067	689335	0.2000	0.2044	
5 Nitrate as N	9.800	9.592	0.208	4769383	0.2000	0.2290	
7 Orthophosphate as P	11.992	11.934	0.058	1023233	0.2000	0.2287	
6 Sulfate	14.559	14.425	0.134	6383321	1.00	1.28	

Reagents:

IC Cal low_00085 Amount Added: 0.02 Units: mL
 IC CAL cl/so4_00047 Amount Added: 0.02 Units: mL

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0002.d

Injection Date: 12-May-2015 10:50:00 Instrument ID: WC_IonChrom11

Operator ID:

Lims ID: std L1

Worklist Smp#: 2

Client ID:

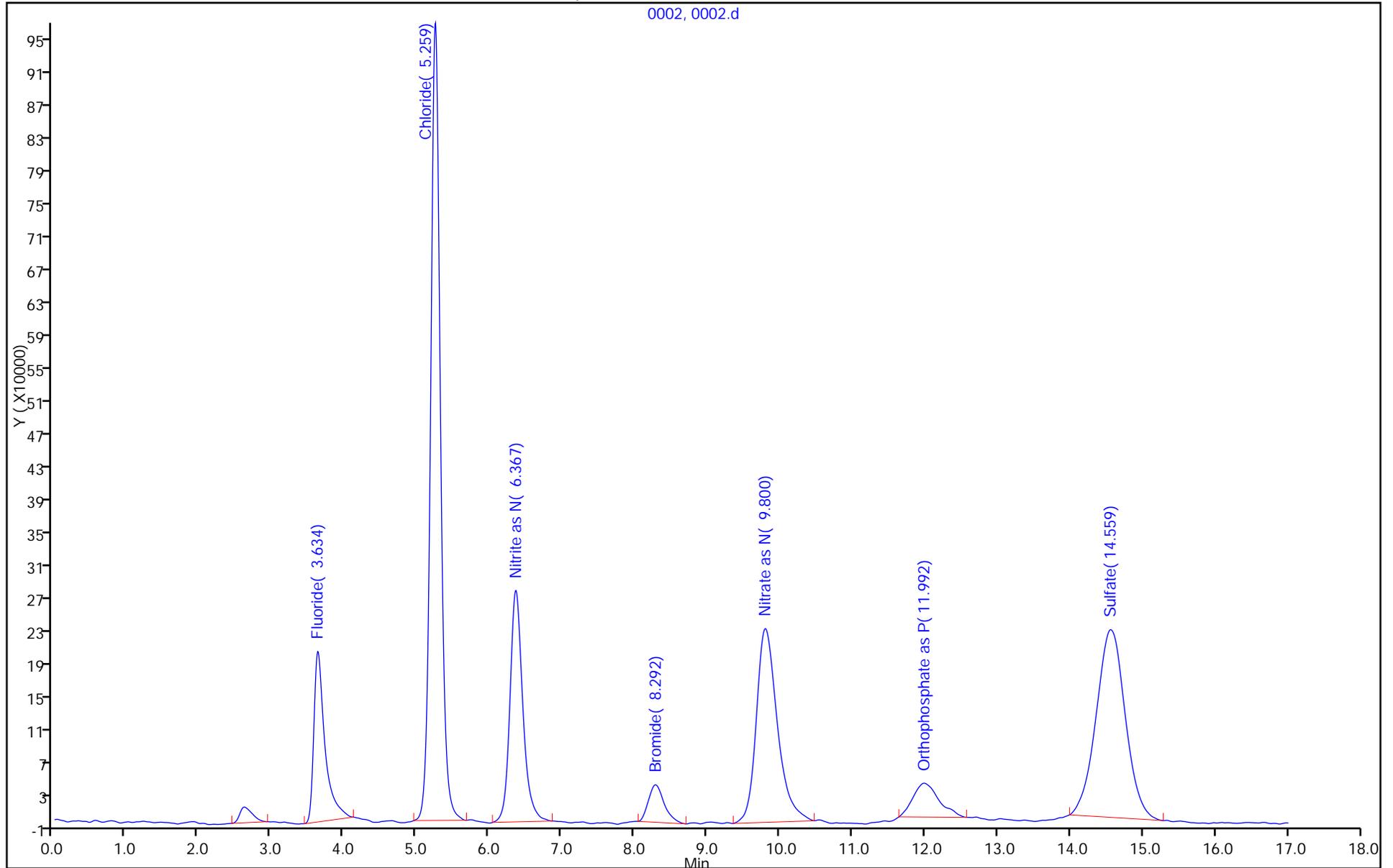
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0003.d
 Lims ID: std L2
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 12-May-2015 11:10:00 ALS Bottle#: 0 Worklist Smp#: 3
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0034924-003
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 13-May-2015 08:12:18 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK022

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.625	2.442	2.942	339248	0.48	12.35		
3.634	3.409	4.375	5895163	8.37	11.13		1 Fluoride
5.259	4.917	5.834	22915821	32.54	9.34		2 Chloride
6.359	6.009	6.984	8942378	12.70	12.35		3 Nitrite as N
8.275	7.925	8.759	1863386	2.65	15.68		4 Bromide
9.750	9.250	10.550	11182082	15.88	19.92		5 Nitrate as N
11.975	11.550	12.834	3069057	4.36	28.08		7 Orthophosphate as P
14.559	13.859	15.450	16218033	23.03	28.51		6 Sulfate
			70425168			Totals	

Total Unknown Area% = 0.48

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0003.d
 Lims ID: std L2
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 12-May-2015 11:10:00 ALS Bottle#: 0 Worklist Smp#: 3
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0034924-003
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 13-May-2015 08:12:18 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.634	3.634	0.000	5895163	0.5000	0.4774	
2 Chloride	5.259	5.375	-0.116	22915821	2.50	2.29	
3 Nitrite as N	6.359	6.350	0.009	8942378	0.5000	0.4728	
4 Bromide	8.275	8.225	0.050	1863386	0.5000	0.4906	
5 Nitrate as N	9.750	9.592	0.158	11182082	0.5000	0.4760	
7 Orthophosphate as P	11.975	11.934	0.041	3069057	0.5000	0.4710	
6 Sulfate	14.559	14.425	0.134	16218033	2.50	2.37	

Reagents:

IC CAL cl/so4_00047 Amount Added: 0.05 Units: mL
 IC Cal low_00085 Amount Added: 0.05 Units: mL

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0003.d

Injection Date: 12-May-2015 11:10:00 Instrument ID: WC_IonChrom11

Lims ID: std L2

Operator ID:

Client ID:

Worklist Smp#: 3

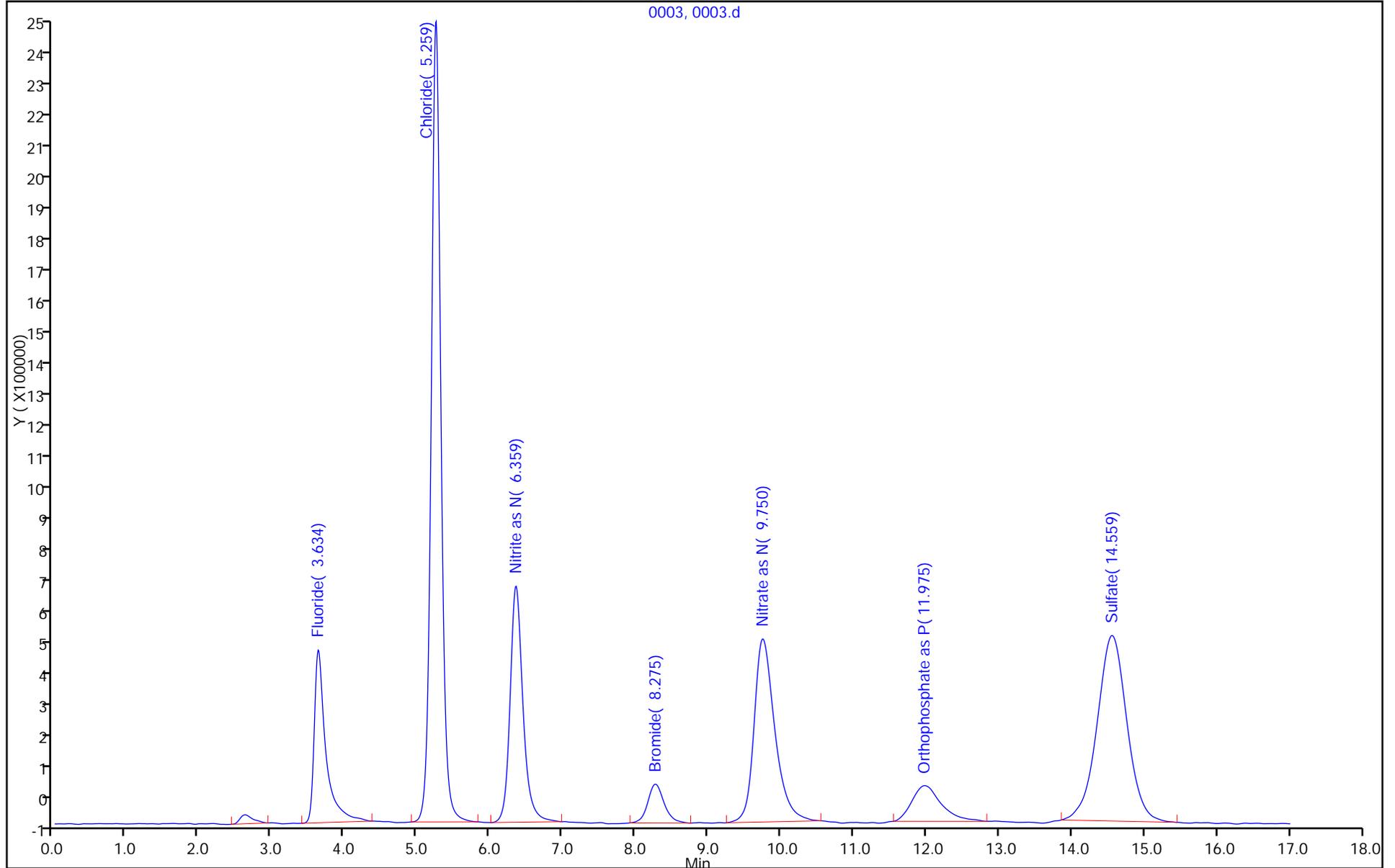
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0004.d
 Lims ID: std L3
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 12-May-2015 11:29:00 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0034924-004
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 13-May-2015 08:12:19 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK022

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.625	2.442	3.067	590194	0.40	13.31		
3.642	3.392	4.600	12620421	8.55	11.16		1 Fluoride
5.267	4.909	5.950	48155436	32.64	9.25		2 Chloride
6.359	6.009	7.184	19102742	12.95	12.36		3 Nitrite as N
8.284	7.817	8.850	3950635	2.68	15.82		4 Bromide
9.734	9.234	10.617	22723305	15.40	19.74		5 Nitrate as N
11.967	11.450	12.950	6921250	4.69	27.95		7 Orthophosphate as P
14.550	13.725	15.459	33474146	22.69	28.73		6 Sulfate
			147538129			Totals	

Total Unknown Area% = 0.40

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0004.d
 Lims ID: std L3
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 12-May-2015 11:29:00 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0034924-004
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 13-May-2015 08:12:19 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.642	3.634	0.008	12620421	1.00	0.9411	
2 Chloride	5.267	5.375	-0.108	48155436	5.00	4.05	
3 Nitrite as N	6.359	6.350	0.009	19102742	1.00	0.9253	
4 Bromide	8.284	8.225	0.059	3950635	1.00	1.00	
5 Nitrate as N	9.734	9.592	0.142	22723305	1.00	0.9206	
7 Orthophosphate as P	11.967	11.934	0.033	6921250	1.00	0.9274	
6 Sulfate	14.550	14.425	0.125	33474146	5.00	4.28	

Reagents:

IC Cal low_00085 Amount Added: 0.10 Units: mL
 IC CAL cl/so4_00047 Amount Added: 0.10 Units: mL

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0004.d

Injection Date: 12-May-2015 11:29:00 Instrument ID: WC_IonChrom11

Lims ID: std L3

Operator ID:

Client ID:

Worklist Smp#: 4

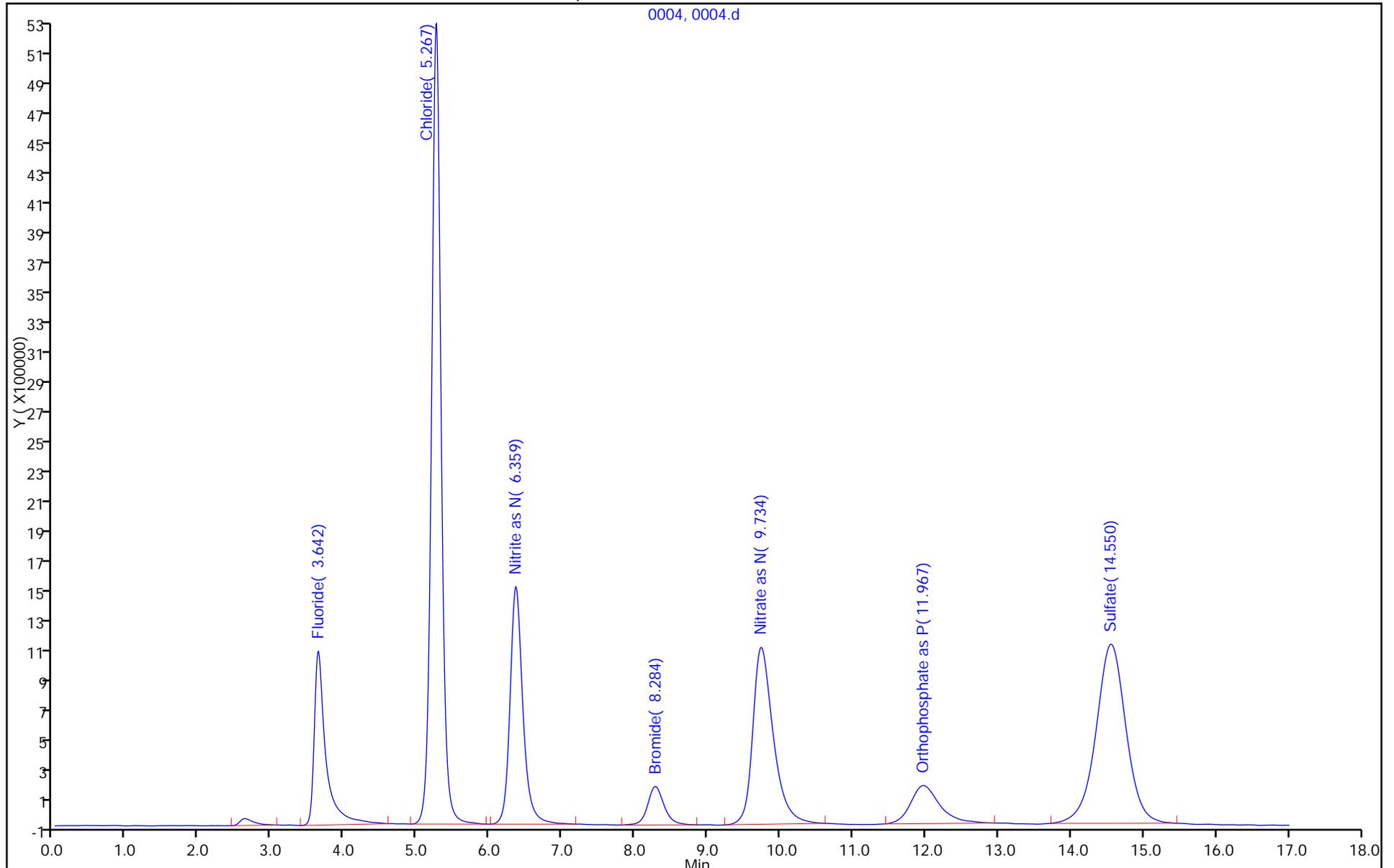
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0005.d
 Lims ID: std L4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 12-May-2015 11:49:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0034924-005
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 13-May-2015 08:12:19 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK022

Detector: 0005

Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.626	2.326	3.276	5197103	0.34	14.30		
3.634	3.367	4.876	55079272	3.55	10.30		1 Fluoride
5.342	4.884	6.009	784912072	50.64	9.76		2 Chloride
6.359	6.009	7.592	84216335	5.43	12.07		3 Nitrite as N
8.259	7.809	9.042	16179637	1.04	15.57		4 Bromide
9.642	9.076	11.042	98302011	6.34	19.53		5 Nitrate as N
11.934	11.292	13.267	31731755	2.05	26.73		7 Orthophosphate as P
14.467	13.392	16.384	474276294	30.60	27.91		6 Sulfate
			1549894479			Totals	

Total Unknown Area% = 0.34

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
 IC, ICal Standard Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0005.d
 Lims ID: std L4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 12-May-2015 11:49:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0034924-005
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 13-May-2015 08:12:19 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK022
 Start Cal Date: 12-May-2015 10:50:00
 End Cal Date: 12-May-2015 12:29:00

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D	%Rec
1 Fluoride	4.00	0.0	3.87	13769818	-3.3	0	97
2 Chloride	60.0	0.0	55.6	13081868	-7.4	0	93
3 Nitrite as N	4.00	0.0	3.83	21054084	-4.4	0	96
4 Bromide	4.00	0.0	3.98	4044909	-0.5	0	100
5 Nitrate as N	4.00	0.0	3.83	24575503	-4.2	0	96
7 Orthophosphate as P	4.00	0.0	3.87	7932939	-3.3	0	97
6 Sulfate	60.0	0.0	53.2	7904605	-11.4	0	89

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0005.d
 Lims ID: std L4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 12-May-2015 11:49:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0034924-005
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 13-May-2015 08:12:19 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.634	3.634	0.000	55079272	4.00	3.87	
2 Chloride	5.342	5.342	0.000	784912072	60.0	55.6	
3 Nitrite as N	6.359	6.359	0.000	84216335	4.00	3.83	
4 Bromide	8.259	8.259	0.000	16179637	4.00	3.98	
5 Nitrate as N	9.642	9.642	0.000	98302011	4.00	3.83	
7 Orthophosphate as P	11.934	11.934	0.000	31731755	4.00	3.87	
6 Sulfate	14.467	14.467	0.000	474276294	60.0	53.2	

Reagents:

IC CAL cl/so4_00047 Amount Added: 1.20 Units: mL
 IC Cal low_00085 Amount Added: 0.40 Units: mL

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0005.d

Injection Date: 12-May-2015 11:49:00 Instrument ID: WC_IonChrom11

Operator ID:

Lims ID: std L4

Worklist Smp#: 5

Client ID:

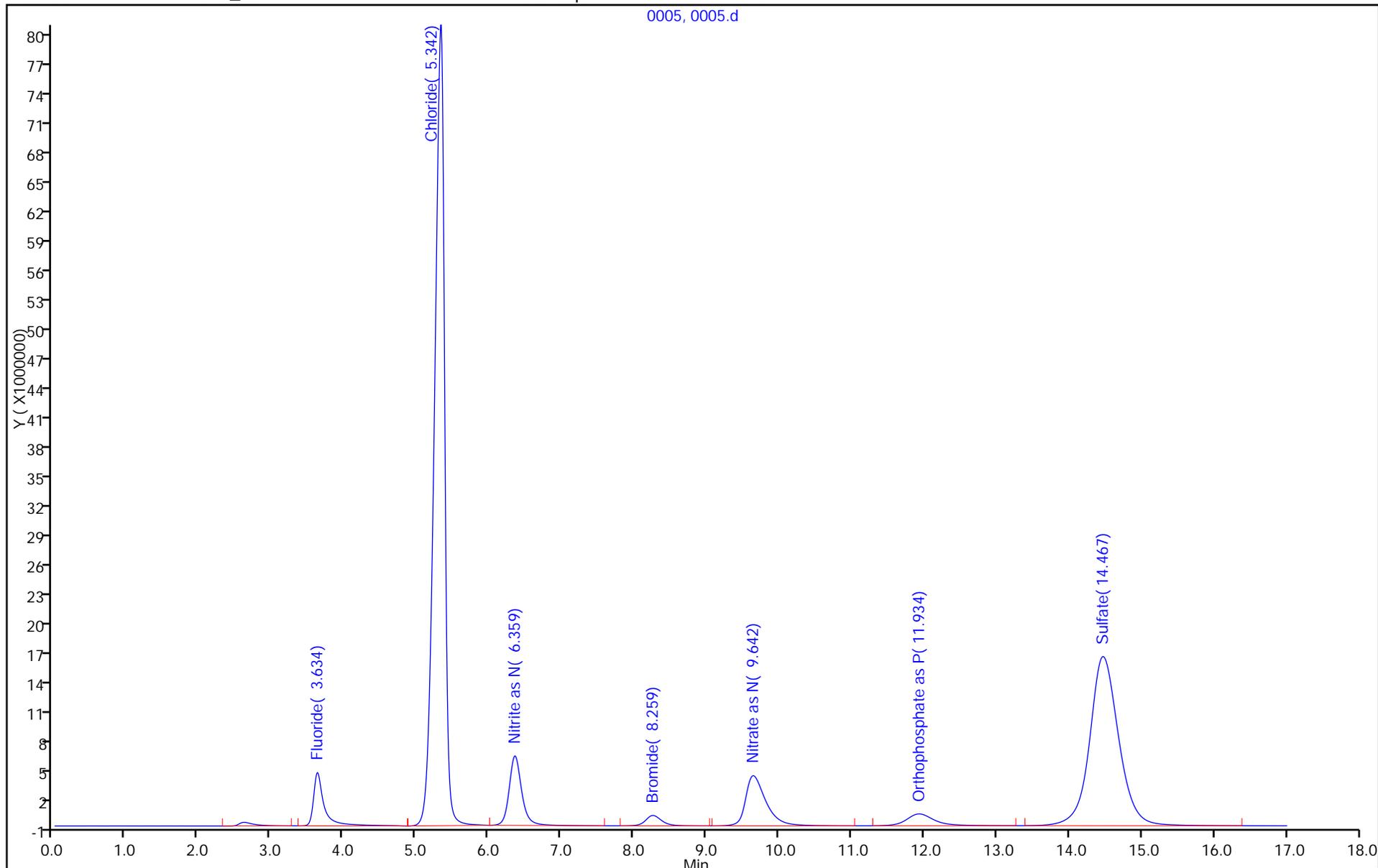
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0006.d
 Lims ID: std L5
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 12-May-2015 12:09:00 ALS Bottle#: 0 Worklist Smp#: 6
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0034924-006
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 13-May-2015 08:12:21 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK022

Detector: 0005

Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.617	2.392	3.334	10350199	0.31	14.45		
3.634	3.334	4.875	114666306	3.40	9.77		1 Fluoride
5.409	4.884	6.017	1704678484	50.55	11.85		2 Chloride
6.367	6.017	7.625	178122810	5.28	11.94		3 Nitrite as N
8.242	7.775	9.025	32589142	0.97	15.34		4 Bromide
9.575	9.034	11.000	206614392	6.13	19.28		5 Nitrate as N
11.909	11.217	13.217	66577060	1.97	25.82		7 Orthophosphate as P
14.392	13.309	16.667	1058961982	31.40	27.90		6 Sulfate
			3372560375			Totals	

Total Unknown Area% = 0.31

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0006.d
 Lims ID: std L5
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 12-May-2015 12:09:00 ALS Bottle#: 0 Worklist Smp#: 6
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0034924-006
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 13-May-2015 08:12:21 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.634	3.634	0.000	114666306	8.00	7.98	
2 Chloride	5.409	5.342	0.067	1704678484	120.0	119.9	
3 Nitrite as N	6.367	6.359	0.008	178122810	8.00	8.01	
4 Bromide	8.242	8.259	-0.017	32589142	8.00	7.98	
5 Nitrate as N	9.575	9.642	-0.067	206614392	8.00	8.00	
7 Orthophosphate as P	11.909	11.934	-0.025	66577060	8.00	8.00	
6 Sulfate	14.392	14.467	-0.075	1058961982	120.0	118.0	

Reagents:

IC Cal low_00085 Amount Added: 0.80 Units: mL
 IC CAL cl/so4_00047 Amount Added: 2.40 Units: mL

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0006.d

Injection Date: 12-May-2015 12:09:00 Instrument ID: WC_IonChrom11

Lims ID: std L5

Operator ID:

Client ID:

Worklist Smp#: 6

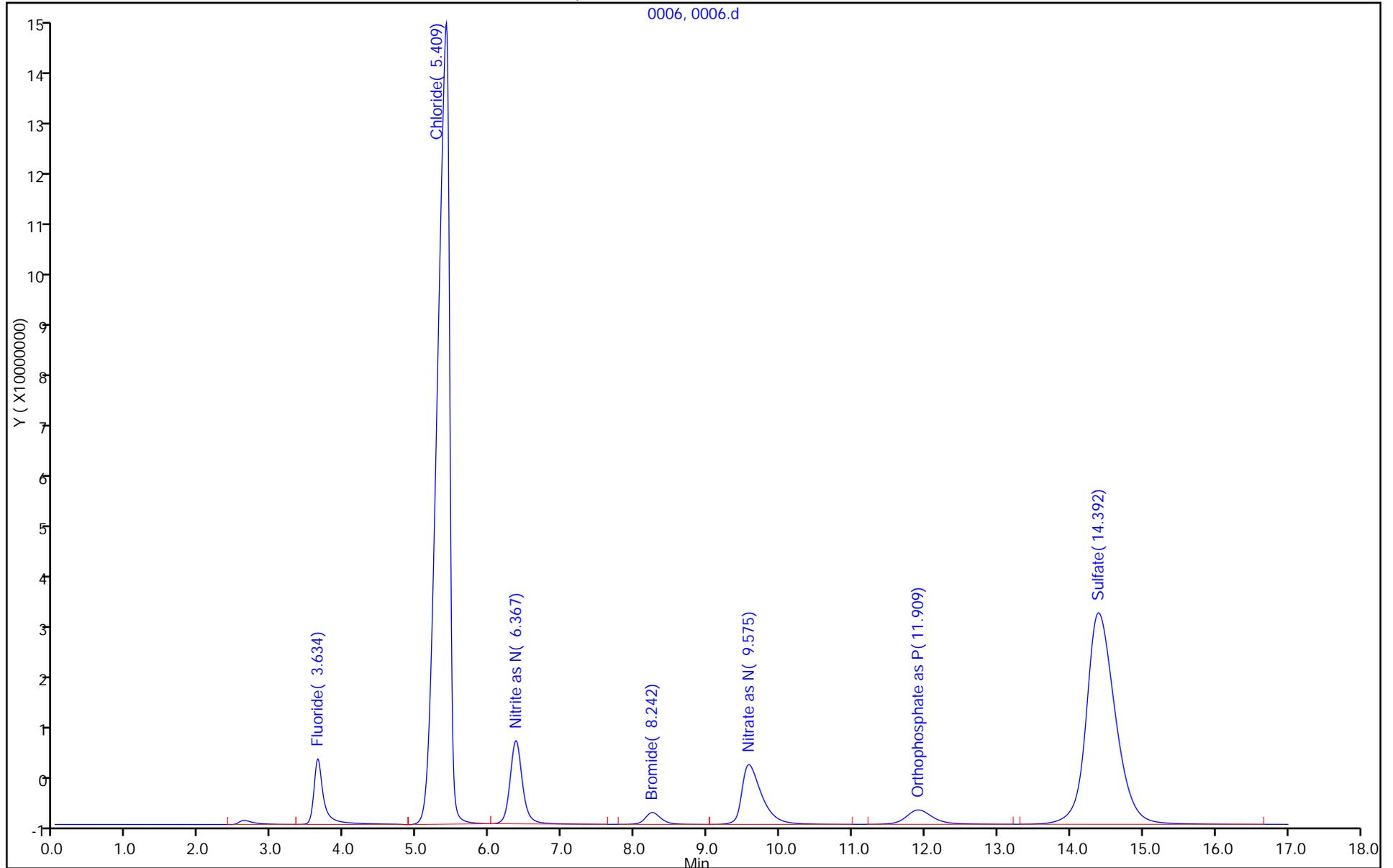
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Lims ID: std L6
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 12-May-2015 12:29:00 ALS Bottle#: 0 Worklist Smp#: 7
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0034924-007
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 13-May-2015 08:12:22 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK022

Detector: 0005

Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.617	2.409	3.350	16125372	0.29	14.51		
3.634	3.350	4.867	147100410	2.63	9.82		1 Fluoride
5.475	4.884	6.025	2927598130	52.34	14.49		2 Chloride
6.367	6.025	7.567	228234803	4.08	11.79		3 Nitrite as N
8.225	7.759	8.975	41057180	0.73	15.16		4 Bromide
9.534	8.992	11.009	264600693	4.73	19.18		5 Nitrate as N
11.892	11.159	13.142	85273268	1.52	25.41		7 Orthophosphate as P
14.300	13.217	17.009	1883237662	33.67	28.77		6 Sulfate
			5593227518			Totals	

Total Unknown Area% = 0.29

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Lims ID: std L6
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 12-May-2015 12:29:00 ALS Bottle#: 0 Worklist Smp#: 7
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0034924-007
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 13-May-2015 08:12:22 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.634	3.634	0.000	147100410	10.0	10.2	
2 Chloride	5.475	5.342	0.133	2927598130	200.0	205.4	
3 Nitrite as N	6.367	6.359	0.008	228234803	10.0	10.2	
4 Bromide	8.225	8.259	-0.034	41057180	10.0	10.0	
5 Nitrate as N	9.534	9.642	-0.108	264600693	10.0	10.2	
7 Orthophosphate as P	11.892	11.934	-0.042	85273268	10.0	10.2	
6 Sulfate	14.300	14.467	-0.167	1883237662	200.0	209.4	

Reagents:

IC CAL cl/so4_00047 Amount Added: 4.00 Units: mL
 IC Cal low_00085 Amount Added: 1.00 Units: mL

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d

Injection Date: 12-May-2015 12:29:00 Instrument ID: WC_IonChrom11

Lims ID: std L6

Operator ID:

Client ID:

Worklist Smp#: 7

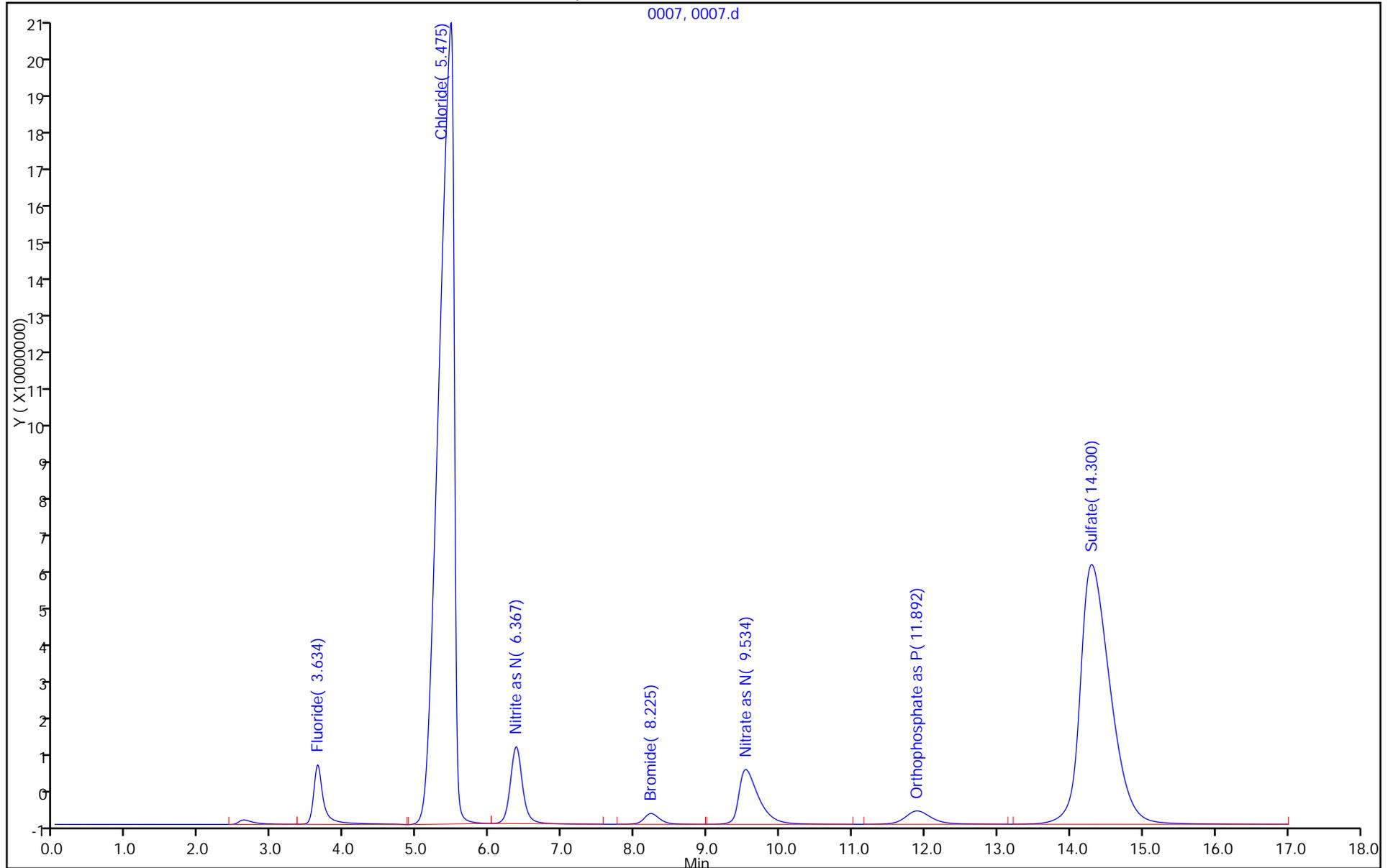
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0008.d
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 21-May-2015 09:45:00 ALS Bottle#: 0 Worklist Smp#: 1
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-001
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist:
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK023

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.634	2.409	3.334	7047665	0.33	14.21		
3.609	3.334	4.826	57717058	2.71	9.09		1 Fluoride
5.309	4.842	5.951	1147373937	53.84	10.39		2 Chloride
6.276	5.951	7.476	80246153	3.77	11.75		3 Nitrite as N
8.126	7.709	8.767	16612372	0.78	15.11		4 Bromide
9.459	8.934	10.742	98355445	4.61	18.95		5 Nitrate as N
11.692	11.059	12.776	32737475	1.54	25.63		7 Orthophosphate as P
14.101	13.017	16.026	691144929	32.43	27.15		6 Sulfate
			2131235034			Totals	

Total Unknown Area% = 0.33

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

Data Review Checklist – Calibration Methods				
Method(s): 300 | 9056	Instrument: ICL1	Run Date 05/21/15	Analyst Initials: AB/TP	SOP #: WC-0020
Prep Batch(s): N/A		Analytical Batch: 278518 / 278519		
A. Calibration/Instrument Run QC	Yes	No	N/A	2nd
Minimum of five standards in ICAL or as specified in SOP?	—			
Correlation coefficient ≥ 0.995 ?	—			
Second-source ICV analyzed, and recovery within acceptance limits?	—			/
ICB analyzed immediately after the ICV & results < the RL	—			/
CCV analyzed after every ten samples & recovery within acceptance limits?	—			/
CCB analyzed after every CCV & results < RL?	—			/
Absolute value of the x intercept is $< \pm \frac{1}{2}$ the RL?	—			/
Elution order verified? (anions)	—			/
Were manual integrations performed correctly and properly documented? (anions)	—			/
B. Sample Results				
All samples greater than highest calibration standard diluted and reanalyzed?	—			/
Do associated RLS/MDLs reflect dilutions or limited sample volume?	—			/
All reported results bracketed by in control CCV results?	—			/
Sample analyses done within holding time? If no, create HTV NCM. NCM #	—			/
Are any results over calibration range? If reported, are results E flagged?	—	—		/
Are J values the result of over dilution?	—	—		/
Client requirements reviewed and met?	—			/
Were data manually transcribed from instrument printouts or benchsheets into TALS verified 100% including dilution factors, significant figures and correct units? (If Applicable)	—			/
Do the prep and analysis dates in TALS reflect the actual dates?	—			
Were peak assignments verified? (anions)	—			/
Were manual integrations performed correctly and properly documented? (anions)	—			/
C. Preparation/Matrix QC				
Method blank $< \frac{1}{2}$ RL or all reported samples $> 10x$ blank have NCM? - (COD, Phenol MB <RL)	—			/
Method blank $< \frac{1}{2}$ RL or NCM provided? - (COD, Phenol MB <RL)	—			/
LCS/LCSD run for batch and within QC limits?	—			/
MS/MSD run at required frequency? Verify that MS/MSD failures are matrix issues and not analytical issues such as not spiking or not applying the appropriate dilution.	—			/
DUP run at required frequency?	—			/
Menu or Tab	Check		1 st	2 nd
Analyst Desktop	Create or open batch			
View Batch Info	Confirm all fields are populated		—	/
	Edit Analyst ID as is appropriate		—	/
Run log	Verify the correct samples and QC are run at the correct frequency (i.e., 10 samples per CCV)		—	/
Sample List	Confirm all Graphics have been uploaded (IC only)		—	/
	In edit mode, if prompted to process samples, select "Yes"		—	/
	Confirm samples are identified (Blue P Icon)		—	/
	Confirm correct analysis date and time are listed		—	/
	Confirm samples have the correct dilution factors. TOC – Check for manual dilutions not entered into Instrument run log, Auto dilutions (Aut. Dil.) and Injections volume (Inj. Vol.)		—	/
	Confirm samples have the correct method chain assigned		—	/
	Confirm that solid samples have the % moisture listed		N/A	N/A
Worksheet	Populate all appropriate fields in the worksheet. Initial Amount, Final Amount, pH, etc.		—	/
Reagents	Confirm reagents are correct and properly associated with QC samples. Confirm that reagent amounts are correct. If reagents are new, verify that the correct COA has been attached to the source standard		—	/
Results	Check for special instructions (Login, Method and Sample comments) - red notebook icon		—	/
	Check for any QC failures		—	/
	Set status for samples based on QC and sample results info (i.e., set to primary analysis with passing QC or reject samples without passing QC or samples that are over-range).		—	/
	Address any results that are reported without passing QC with an NCM		—	/
QC Links	Confirm QC links are correct		—	/
Hist. Data Check	Check historical data. Print charts for outliners. Take corrective action as is appropriate		—	/
Sample List	Re-calculate data and set to appropriate review status (1 st or 2 nd level review)		—	/
	Scan and attach raw data & save batch		—	/
Analyst: TP	Date: 05/22/15	2nd Level Reviewer: Phyllis Lipen	Date: 05/22/15	

27898 / 19

IC Instrument Information

WL: 35274 Inst ID: 11 Analysis Date: 5/21/15 Analyst: AVY

Rush	Job No.	Samples	Anions	QC Req	HT Exp
9056 300	✓ <u>69589</u>	<u>1</u>	F Cl NO2 Br NO3 PO4 SO4	MS/D 2	<u>5/22</u>
	✓ <u>68998</u>	<u>2</u>	F Cl NO2 Br NO3 PO4 SO4	MS/D	✓ per AB
	✓ <u>69025</u>	<u>3</u>	F Cl NO2 Br NO3 PO4 SO4	MS/D	✓ per Drew
700	✓ <u>69612</u>	<u>5</u>	F <u>Cl</u> NO2 Br <u>NO3</u> PO4 <u>SO4</u>	<u>MS/D</u>	5
300	✓ <u>60-11941</u>	<u>1</u>	F <u>Cl</u> NO2 Br <u>NO3</u> <u>PO4</u> <u>SO4</u>	MS/D	
300	✓ <u>69049</u>	<u>5</u>	F <u>Cl</u> NO2 Br NO3 PO4 <u>SO4</u>	MS/D	
			F Cl NO2 Br NO3 PO4 SO4	MS/D	
			F Cl NO2 Br NO3 PO4 SO4	MS/D	
			F Cl NO2 Br NO3 PO4 SO4	MS/D	
			F Cl NO2 Br NO3 PO4 SO4	MS/D	
			F Cl NO2 Br NO3 PO4 SO4	MS/D	
			F Cl NO2 Br NO3 PO4 SO4	MS/D	
			F Cl NO2 Br NO3 PO4 SO4	MS/D	
			F Cl NO2 Br NO3 PO4 SO4	MS/D	
			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
<u>69612</u>	<u>1,2,3,5</u>	F <u>Cl</u> NO2 Br <u>NO3</u> PO4 <u>SO4</u>	<u>20x</u>	<u>high</u>
<u>69612</u>	<u>4</u>	F <u>Cl</u> NO2 Br <u>NO3</u> PO4 <u>SO4</u>	<u>50x</u>	<u>high</u>
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

29
23
19

Phuriga S.
05/25/2015

Data Review Checklist – Calibration Methods

Method(s): 300 | 9056		Instrument: ICL1	Run Date 05/21/15	Analyst Initials: AB/TP	SOP #: WC-0020
Prep Batch(s): N/A			Analytical Batch: 278518 / 278519		
A. Calibration/Instrument Run QC					
Minimum of five standards in ICAL or as specified in SOP?					Yes
Correlation coefficient ≥ 0.995 ?					No
Second-source ICV analyzed, and recovery within acceptance limits?					N/A
ICB analyzed immediately after the ICV & results < the RL					2nd
CCV analyzed after every ten samples & recovery within acceptance limits?					
CCB analyzed after every CCV & results < RL?					
Absolute value of the x intercept is < $\pm 1/2$ the RL?					
Elution order verified? (anions)					
Were manual integrations performed correctly and properly documented? (anions)					
B. Sample Results					
All samples greater than highest calibration standard diluted and reanalyzed?					
Do associated RLs/MDLs reflect dilutions or limited sample volume?					
All reported results bracketed by in control CCV results?					
Sample analyses done within holding time? If no, create HTV NCM. NCM #					
Are any results over calibration range? If reported, are results E flagged?					
Are J values the result of over dilution?					
Client requirements reviewed and met?					
Were data manually transcribed from instrument printouts or benchsheets into TALS verified 100% including dilution factors, significant figures and correct units? (If Applicable)					
Do the prep and analysis dates in TALS reflect the actual dates?					
Were peak assignments verified? (anions)					
Were manual integrations performed correctly and properly documented? (anions)					
C. Preparation/Matrix QC					
Method blank < $1/2$ RL or all reported samples > 10x blank have NCM? - (COD, Phenol MB <RL)					
Method blank < $1/2$ RL or NCM provided? - (COD, Phenol MB <RL)					
LCS/LCSD run for batch and within QC limits?					
MS/MSD run at required frequency? Verify that MS/MSD failures are matrix issues and not analytical issues such as not spiking or not applying the appropriate dilution.					
DUP run at required frequency?					
Menu or Tab	Check			1st	2nd
Analyst Desktop	Create or open batch				
View Batch Info	Confirm all fields are populated				
	Edit Analyst ID as is appropriate				
Run log	Verify the correct samples and QC are run at the correct frequency (i.e., 10 samples per CCV)				
Sample List	Confirm all Graphics have been uploaded (IC only)				
	In edit mode, if prompted to process samples, select "Yes"				
	Confirm samples are identified (Blue P Icon)				
	Confirm correct analysis date and time are listed				
	Confirm samples have the correct dilution factors. TOC – Check for manual dilutions not entered into instrument run log, Auto dilutions (Aut. Dil.) and Injections volume (Inj. Vol.)				
	Confirm samples have the correct method chain assigned				
	Confirm that solid samples have the % moisture listed			N/A	
Worksheet	Populate all appropriate fields in the worksheet. Initial Amount, Final Amount, pH, etc.				
Reagents	Confirm reagents are correct and properly associated with QC samples. Confirm that reagent amounts are correct. If reagents are new, verify that the correct COA has been attached to the source standard				
Results	Check for special instructions (Login, Method and Sample comments) - red notebook icon				
	Check for any QC failures				
	Set status for samples based on QC and sample results info (i.e., set to primary analysis with passing QC or reject samples without passing QC or samples that are over-range).				
	Address any results that are reported without passing QC with an NCM				
QC Links	Confirm QC links are correct				
Hist. Data Check	Check historical data. Print charts for outliers. Take corrective action as is appropriate				
Sample List	Re-calculate data and set to appropriate review status (1 st or 2 nd level review)				
	Scan and attach raw data & save batch				
Analyst: TP		Date: 05/22/15		2nd Level Reviewer:	
				Date:	

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0008.d
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 21-May-2015 09:45:00 ALS Bottle#: 0 Worklist Smp#: 1
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-001
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist:
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK023

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.609	3.609	0.000	57717058	4.00	4.05	
2 Chloride	5.309	5.309	0.000	1147373937	80.0	80.9	
3 Nitrite as N	6.276	6.276	0.000	80246153	4.00	3.65	
4 Bromide	8.126	8.126	0.000	16612372	4.00	4.09	
5 Nitrate as N	9.459	9.459	0.000	98355445	4.00	3.83	
7 Orthophosphate as P	11.692	11.692	0.000	32737475	4.00	3.99	
6 Sulfate	14.101	14.101	0.000	691144929	80.0	77.2	

Reagents:

IC CL ICV_00010 Amount Added: 0.40 Units: mL
 IC SO4 ICV_00014 Amount Added: 0.40 Units: mL
 IC ICV 5_00077 Amount Added: 0.40 Units: mL

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0008.d

Injection Date: 21-May-2015 09:45:00 Instrument ID: WC_IonChrom11

Lims ID: ICV

Operator ID:

Client ID:

Worklist Smp#: 1

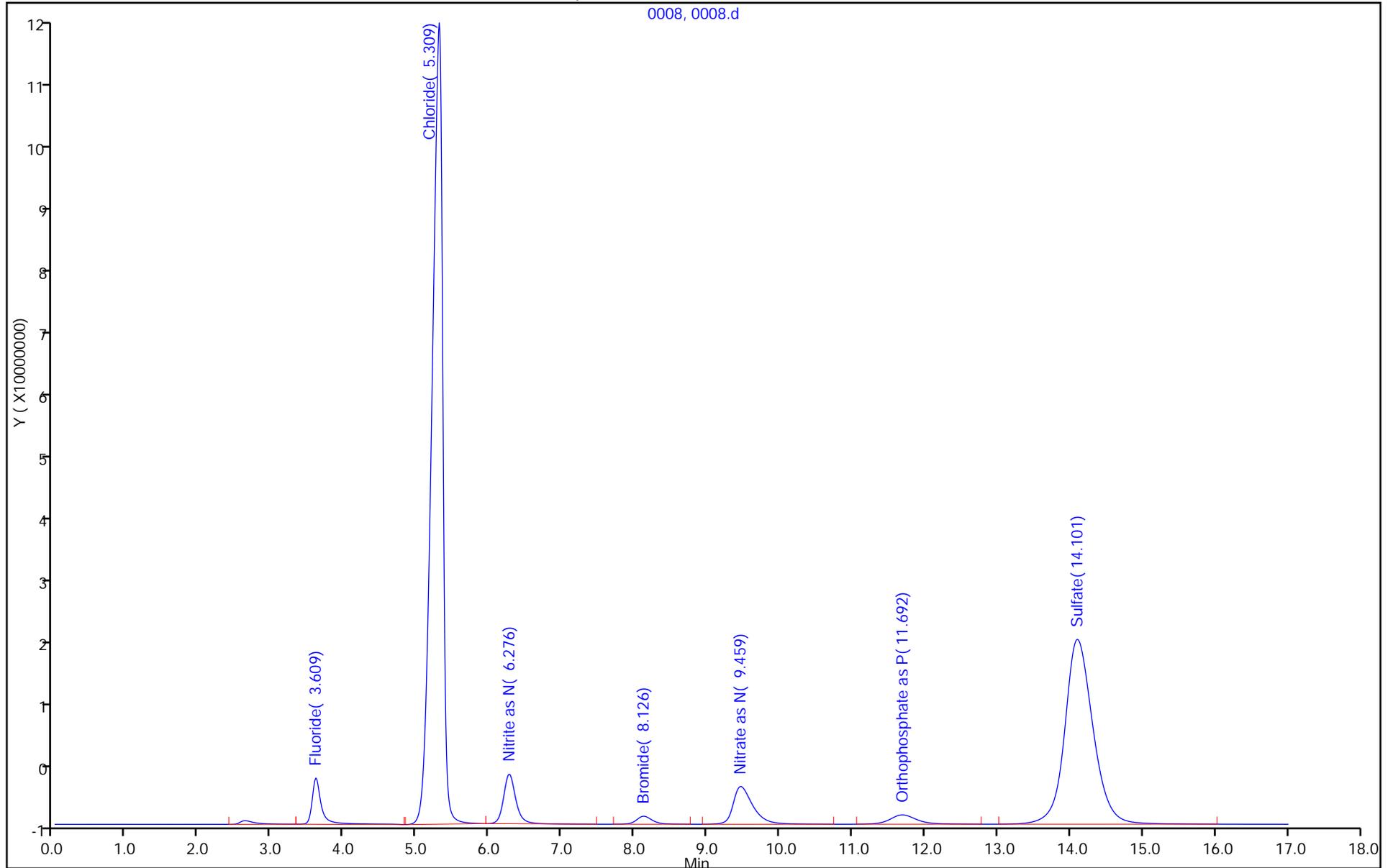
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0009.d
 Lims ID: ICB
 Client ID:
 Sample Type: ICB
 Inject. Date: 21-May-2015 10:04:00 ALS Bottle#: 0 Worklist Smp#: 2
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-002
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK023

Detector: 0005
 Number of peaks found: 2

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.634	2.459	2.909	247084	61.40	11.22		
5.200	5.042	5.467	155357	38.60	9.24		2 Chloride
			402441			Totals	

Total Unknown Area% = 61.40

- Flag Legend
 M - Manually Integrated
 A - User Assigned Compound
 B - Overlapped Base Peak
 O - Overlapping Peak
 e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0009.d
 Lims ID: ICB
 Client ID:
 Sample Type: ICB
 Inject. Date: 21-May-2015 10:04:00 ALS Bottle#: 0 Worklist Smp#: 2
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-002
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK023

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.609				ND	
2 Chloride	5.200	5.309	-0.109	155357		0.6966	
3 Nitrite as N		6.276				ND	
4 Bromide		8.126				ND	
5 Nitrate as N		9.459				ND	
7 Orthophosphate as P		11.692				ND	
6 Sulfate		14.101				ND	

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0009.d

Injection Date: 21-May-2015 10:04:00 Instrument ID: WC_IonChrom11

Operator ID:

Lims ID: ICB

Worklist Smp#: 2

Client ID:

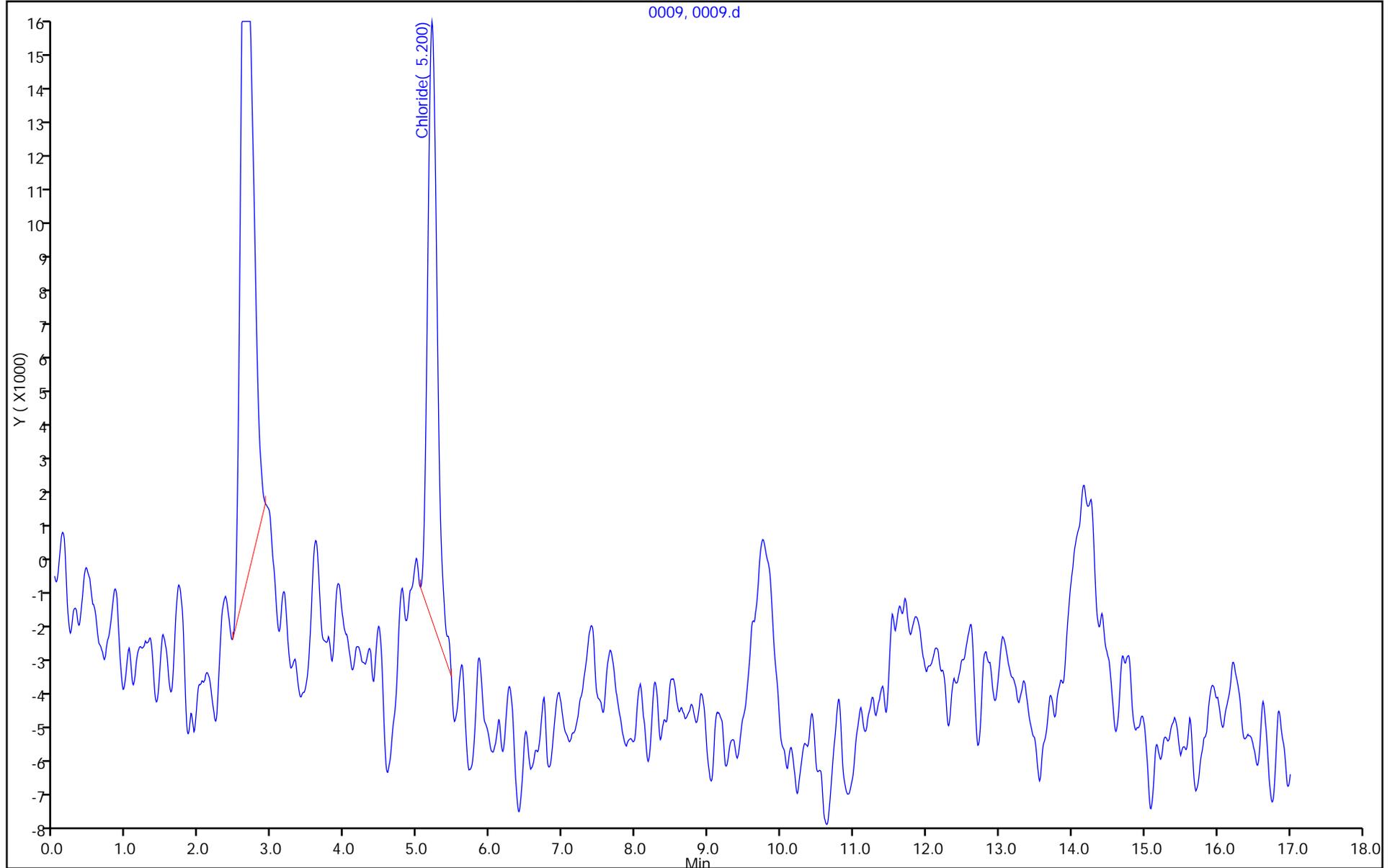
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0010.d
 Lims ID: MRL
 Client ID:
 Sample Type: MRL
 Inject. Date: 21-May-2015 10:24:00 ALS Bottle#: 0 Worklist Smp#: 3
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-003
 Misc. Info.: 10
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK023

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.642	2.459	2.950	388106	0.72	12.05		
3.609	3.334	4.092	2457989	4.57	9.04		1 Fluoride
5.209	4.850	5.842	23756258	44.20	9.23		2 Chloride
6.284	5.975	6.800	3657496	6.81	12.18		3 Nitrite as N
8.159	7.859	8.642	794434	1.48	15.97		4 Bromide
9.625	9.192	10.375	4673331	8.70	19.77		5 Nitrate as N
11.725	11.409	12.184	999968	1.86	22.79		7 Orthophosphate as P
14.209	13.442	15.092	17016806	31.66	28.32		6 Sulfate
			53744388			Totals	

Total Unknown Area% = 0.72

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0010.d
 Lims ID: MRL
 Client ID:
 Sample Type: MRL
 Inject. Date: 21-May-2015 10:24:00 ALS Bottle#: 0 Worklist Smp#: 3
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-003
 Misc. Info.: 10
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK023

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.609	3.609	0.000	2457989	0.2000	0.2404	
2 Chloride	5.209	5.309	-0.100	23756258	2.50	2.35	
3 Nitrite as N	6.284	6.276	0.008	3657496	0.2000	0.2375	
4 Bromide	8.159	8.126	0.033	794434	0.2000	0.2301	
5 Nitrate as N	9.625	9.459	0.166	4673331	0.2000	0.2253	
7 Orthophosphate as P	11.725	11.692	0.033	999968	0.2000	0.2259	
6 Sulfate	14.209	14.101	0.108	17016806	2.50	2.46	

Reagents:

IC Cal low_00087 Amount Added: 0.02 Units: mL
 IC CAL cl/so4_00049 Amount Added: 0.05 Units: mL

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0010.d

Injection Date: 21-May-2015 10:24:00 Instrument ID: WC_IonChrom11

Lims ID: MRL

Operator ID:

Worklist Smp#: 3

Client ID:

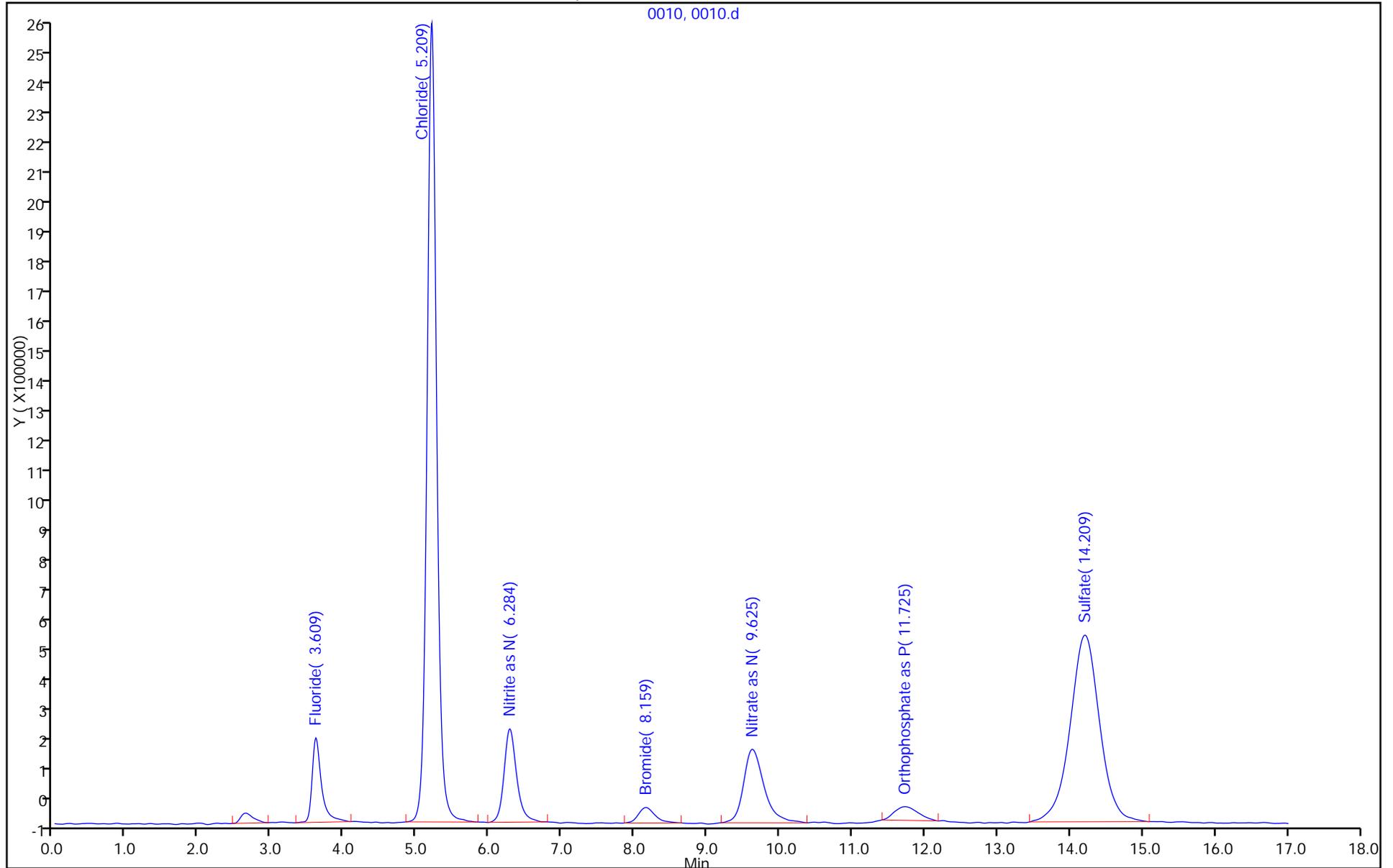
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0011.d
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 21-May-2015 10:44:00 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-004
 Misc. Info.: 11 f
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK023

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.634	2.409	3.342	8336584	0.31	14.30		
3.609	3.342	4.834	73775051	2.78	8.97		1 Fluoride
5.334	4.842	5.950	1409559602	53.09	11.04		2 Chloride
6.284	5.950	7.467	108944180	4.10	11.75		3 Nitrite as N
8.134	7.700	8.900	20512433	0.77	15.13		4 Bromide
9.459	8.917	10.825	126398994	4.76	18.90		5 Nitrate as N
11.675	10.984	12.884	42534025	1.60	25.61		7 Orthophosphate as P
14.075	12.967	16.317	864771017	32.57	27.22		6 Sulfate
			2654831886			Totals	

Total Unknown Area% = 0.31

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0011.d
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 21-May-2015 10:44:00 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-004
 Misc. Info.: 11 f
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK023

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.609	3.609	0.000	73775051	5.00	5.16	
2 Chloride	5.334	5.309	0.025	1409559602	100.0	99.2	
3 Nitrite as N	6.284	6.276	0.008	108944180	5.00	4.93	
4 Bromide	8.134	8.126	0.008	20512433	5.00	5.04	
5 Nitrate as N	9.459	9.459	0.000	126398994	5.00	4.91	
7 Orthophosphate as P	11.675	11.692	-0.017	42534025	5.00	5.15	
6 Sulfate	14.075	14.101	-0.026	864771017	100.0	96.5	

Reagents:

IC LCS_00266 Amount Added: 5.00 Units: mL

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0011.d

Injection Date: 21-May-2015 10:44:00 Instrument ID: WC_IonChrom11

Operator ID:

Lims ID: LCS

Worklist Smp#: 4

Client ID:

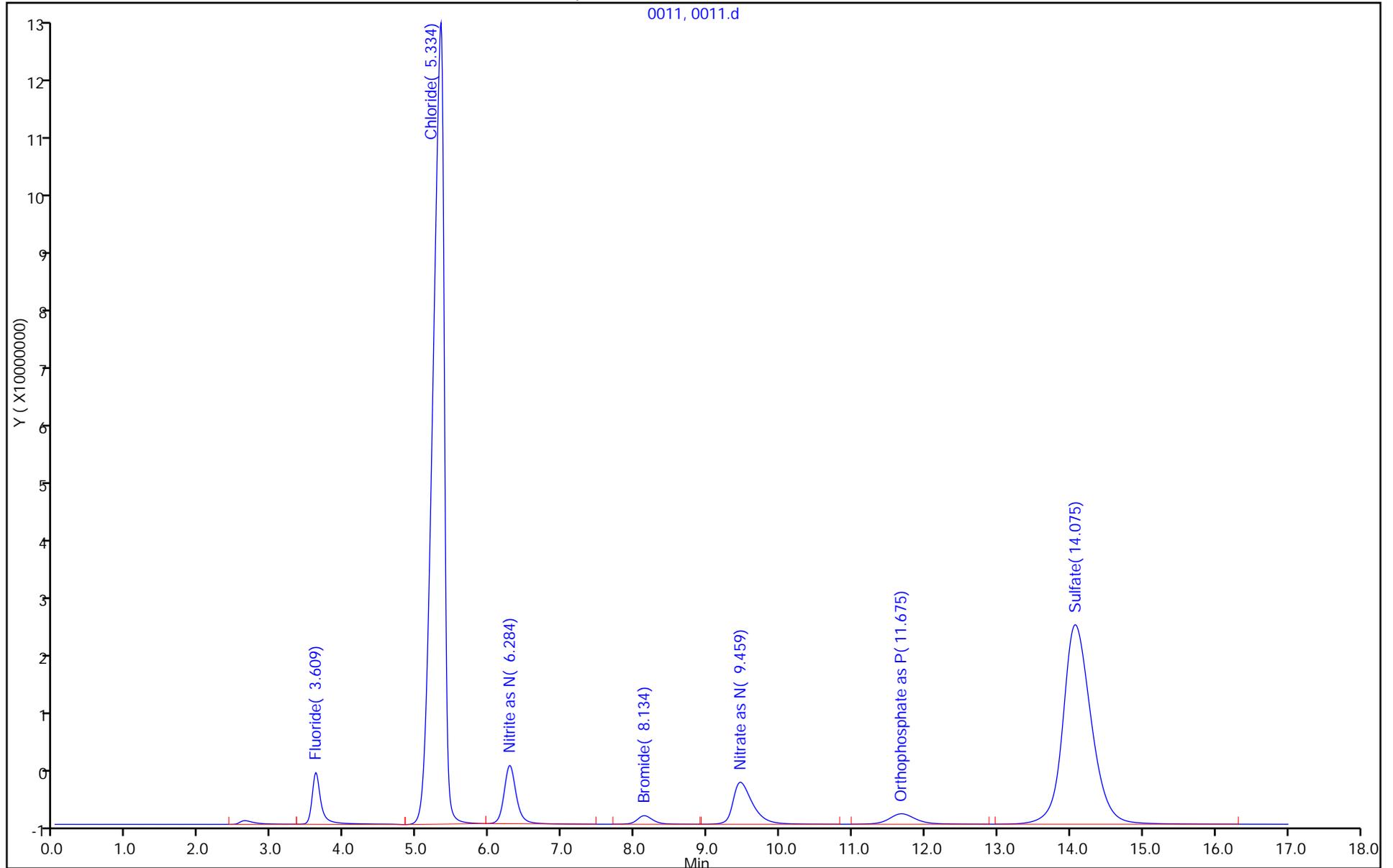
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0012.d
 Lims ID: LCSD
 Client ID:
 Sample Type: LCSD
 Inject. Date: 21-May-2015 11:04:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-005
 Misc. Info.: 12 f
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK023

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.634	2.400	3.317	8555753	0.32	14.24		
3.609	3.325	4.825	73780122	2.78	8.89		1 Fluoride
5.334	4.842	5.950	1407964648	53.06	11.03		2 Chloride
6.275	5.950	7.500	110470980	4.16	11.76		3 Nitrite as N
8.134	7.675	8.842	20627141	0.78	15.20		4 Bromide
9.459	8.850	10.850	126481152	4.77	18.90		5 Nitrate as N
11.675	10.917	12.842	42917395	1.62	25.64		7 Orthophosphate as P
14.067	12.975	15.834	862807909	32.51	27.18		6 Sulfate
			2653605100			Totals	

Total Unknown Area% = 0.32

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0012.d
 Lims ID: LCSD
 Client ID:
 Sample Type: LCSD
 Inject. Date: 21-May-2015 11:04:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-005
 Misc. Info.: 12 f
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK023

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.609	3.609	0.000	73780122	5.00	5.16	
2 Chloride	5.334	5.309	0.025	1407964648	100.0	99.1	
3 Nitrite as N	6.275	6.276	-0.001	110470980	5.00	4.99	
4 Bromide	8.134	8.126	0.008	20627141	5.00	5.06	
5 Nitrate as N	9.459	9.459	0.000	126481152	5.00	4.92	
7 Orthophosphate as P	11.675	11.692	-0.017	42917395	5.00	5.19	
6 Sulfate	14.067	14.101	-0.034	862807909	100.0	96.2	

Reagents:

IC LCS_00266 Amount Added: 5.00 Units: mL

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0012.d

Injection Date: 21-May-2015 11:04:00 Instrument ID: WC_IonChrom11

Lims ID: LCSD

Operator ID:

Client ID:

Worklist Smp#: 5

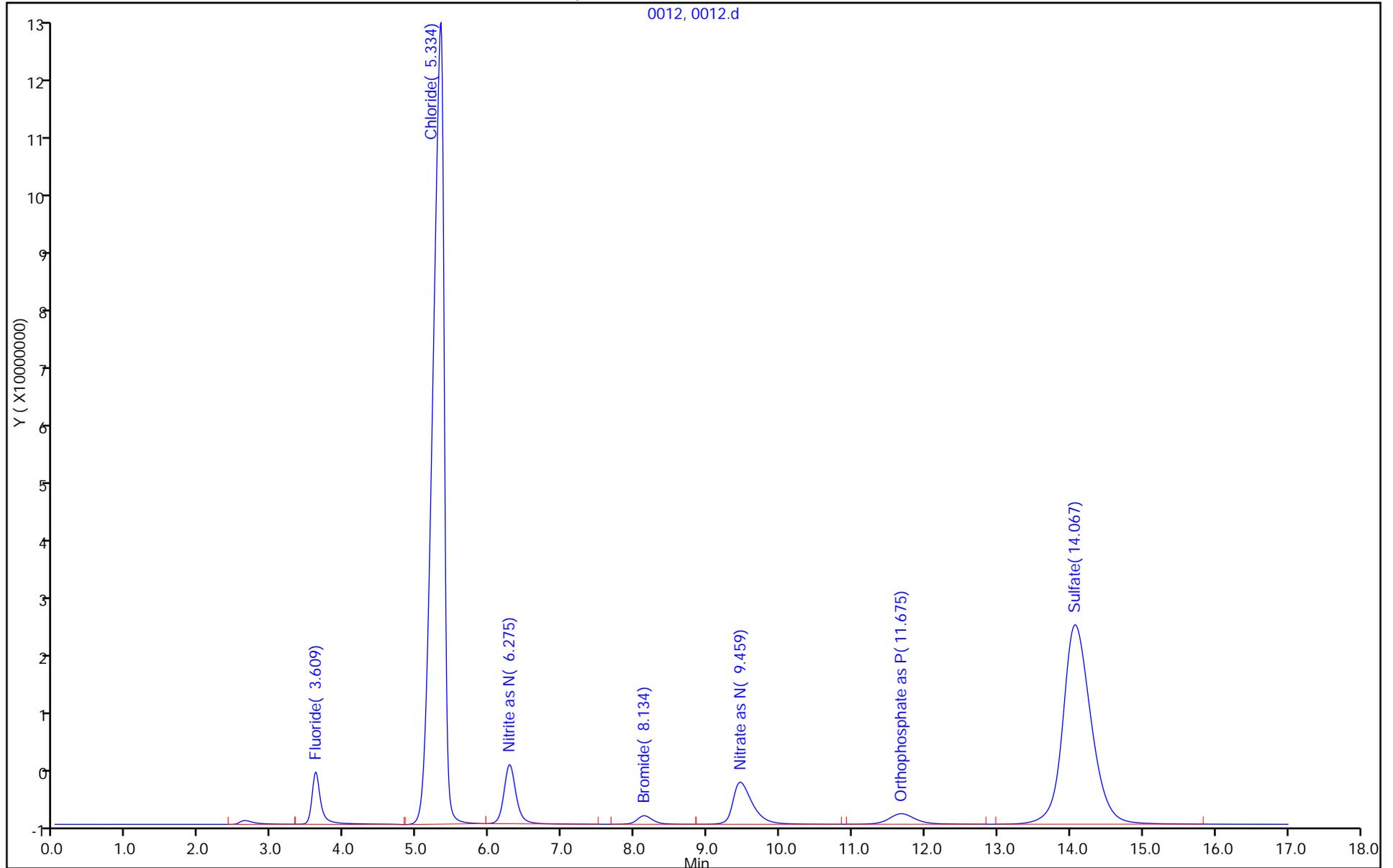
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0013.d
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 21-May-2015 11:24:00 ALS Bottle#: 0 Worklist Smp#: 6
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-006
 Misc. Info.: 13 f
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK023

Detector: 0005
 Number of peaks found: 2

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.626	2.459	3.034	247279	50.97	15.26		
5.201	5.034	5.417	237837	49.03	8.25		2 Chloride
			485116			Totals	

Total Unknown Area% = 50.97

- Flag Legend
 M - Manually Integrated
 A - User Assigned Compound
 B - Overlapped Base Peak
 O - Overlapping Peak
 e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0013.d
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 21-May-2015 11:24:00 ALS Bottle#: 0 Worklist Smp#: 6
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-006
 Misc. Info.: 13 f
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK023

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.609				ND	
2 Chloride	5.201	5.309	-0.108	237837		0.7024	
3 Nitrite as N		6.276				ND	
4 Bromide		8.126				ND	
5 Nitrate as N		9.459				ND	
7 Orthophosphate as P		11.692				ND	
6 Sulfate		14.101				ND	

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0013.d

Injection Date: 21-May-2015 11:24:00 Instrument ID: WC_IonChrom11

Operator ID:

Lims ID: MB

Worklist Smp#: 6

Client ID:

Injection Vol: 25.0 ul

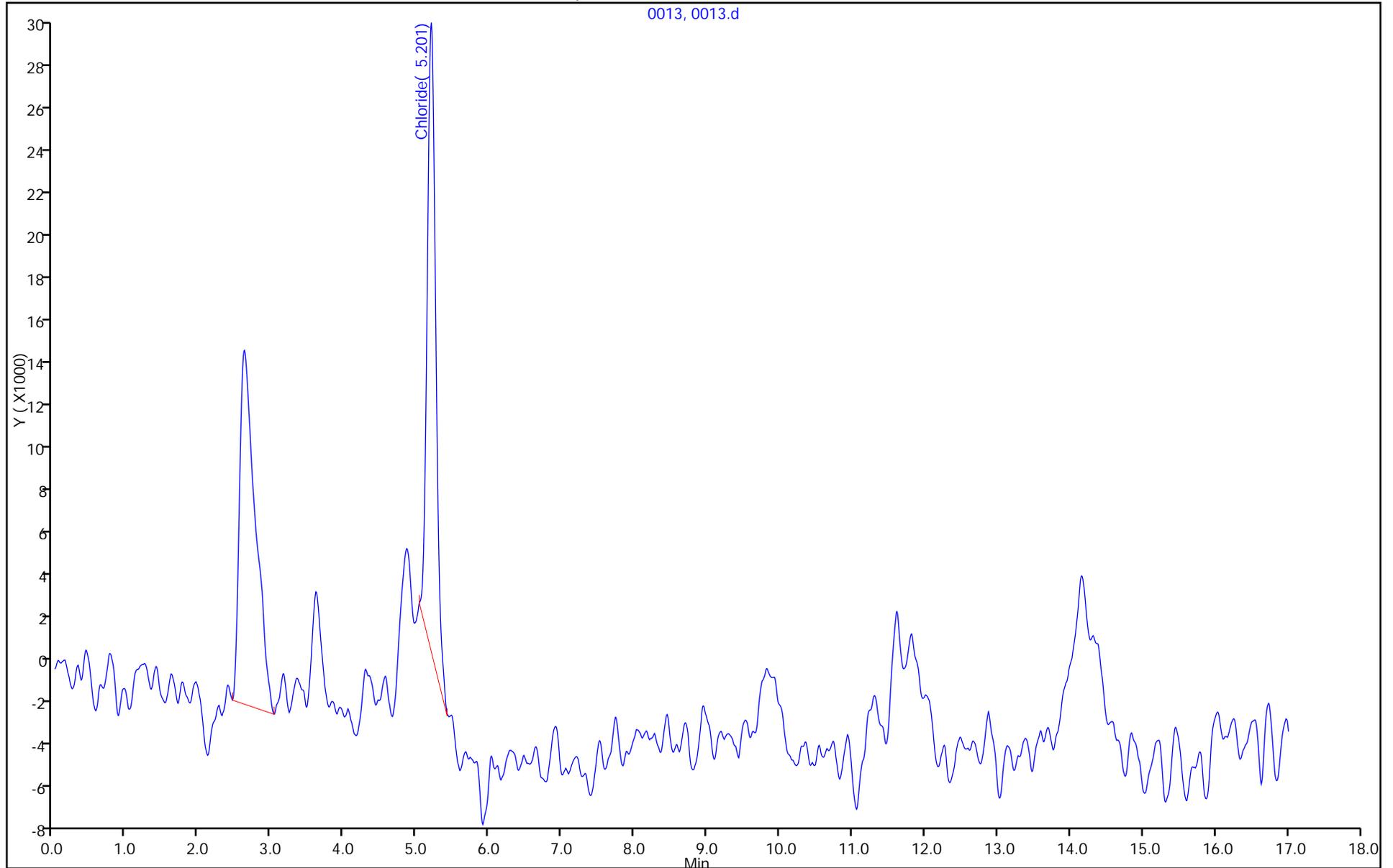
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions

0013, 0013.d



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0014.d
 Lims ID: 280-69589-D-2 Lab Sample ID: 280-69589-2
 Client ID: 54400-MW54-0515
 Sample Type: Client
 Inject. Date: 21-May-2015 14:12:00 ALS Bottle#: 0 Worklist Smp#: 7
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-007
 Misc. Info.: 17121 508
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK023

First Level Reviewer: janssene Date: 22-May-2015 07:43:57

Detector: 0005
Number of peaks found: 6

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.634	2.392	3.450	9179308	1.81	16.43		
3.617	3.459	4.234	2824831	0.56	11.43		1 Fluoride
5.317	4.600	6.317	298709601	58.84	8.27		2 Chloride
8.184	7.967	8.609	226952	0.04	20.22		4 Bromide
9.575	8.975	10.709	23456103	4.62	19.42		5 Nitrate as N
14.184	13.234	15.442	173298640	34.13	27.75		6 Sulfate
			507695435			Totals	

Total Unknown Area% = 1.81

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0014.d
 Lims ID: 280-69589-D-2 Lab Sample ID: 280-69589-2
 Client ID: 54400-MW54-0515
 Sample Type: Client
 Inject. Date: 21-May-2015 14:12:00 ALS Bottle#: 0 Worklist Smp#: 7
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-007
 Misc. Info.: 17121 508
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK023

First Level Reviewer: janssene Date: 22-May-2015 07:43:57

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	3.617	3.609	0.008	2824831	0.2657	
2 Chloride	5.317	5.309	0.008	298709601	21.6	
3 Nitrite as N		6.276			ND	
4 Bromide	8.184	8.126	0.058	226952	0.0917	
5 Nitrate as N	9.575	9.459	0.116	23456103	0.9488	
7 Orthophosphate as P		11.692			ND	
6 Sulfate	14.184	14.101	0.083	173298640	19.8	

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0014.d

Injection Date: 21-May-2015 14:12:00

Instrument ID: WC_IonChrom11

Operator ID:

Lims ID: 280-69589-D-2

Lab Sample ID: 280-69589-2

Worklist Smp#: 7

Client ID: 54400-MW54-0515

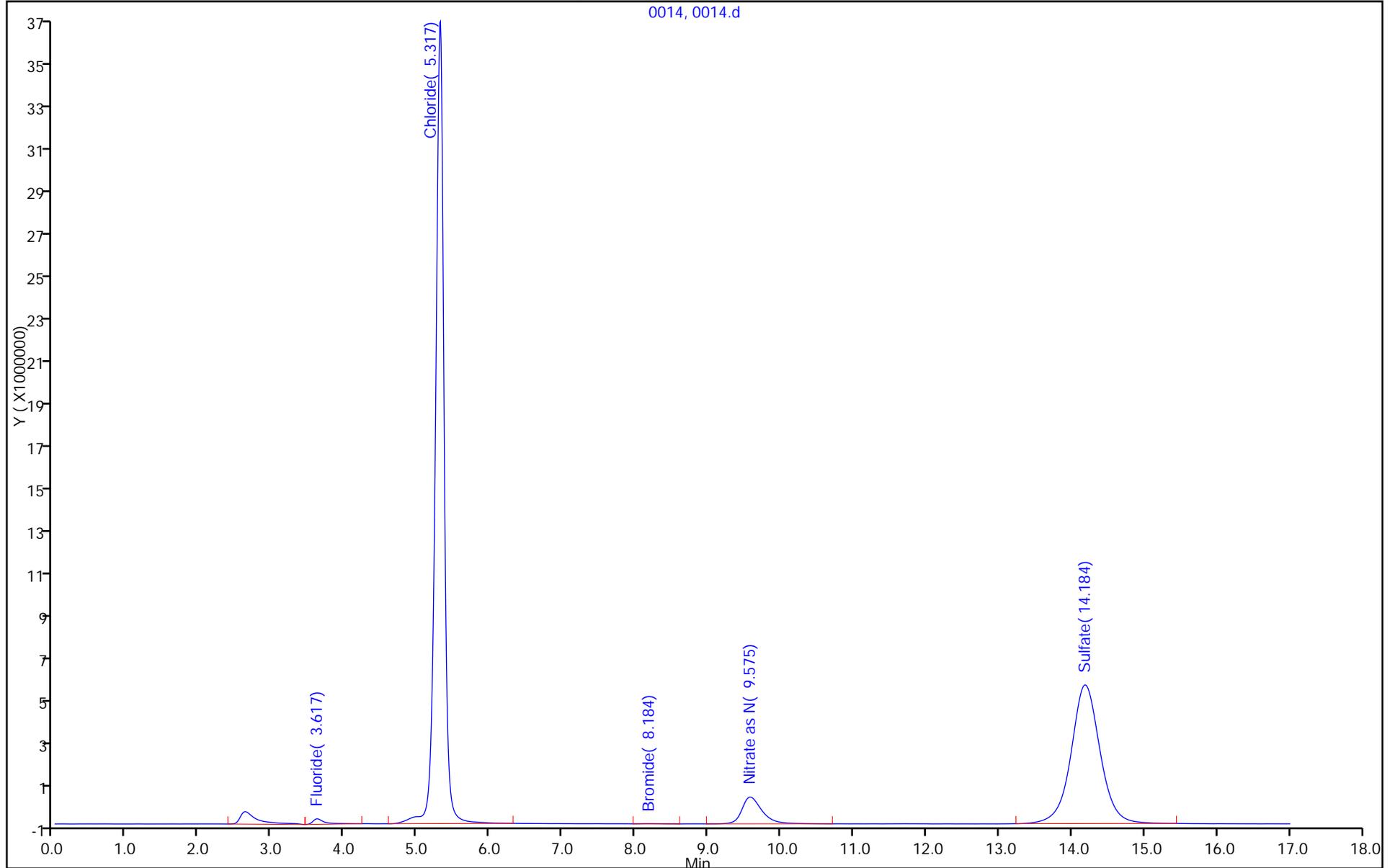
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0015.d
 Lims ID: 280-69589-D-2 DU
 Client ID:
 Sample Type: DU
 Inject. Date: 21-May-2015 14:31:00 ALS Bottle#: 0 Worklist Smp#: 8
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-008
 Misc. Info.: 14583
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK023

Detector: 0005
 Number of peaks found: 6

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.626	2.417	3.451	8771794	1.72	16.38		
3.617	3.459	4.367	2943542	0.58	12.10		1 Fluoride
5.309	4.567	6.726	300008815	58.92	8.28		2 Chloride
8.201	7.984	8.392	103023	0.02	12.45		4 Bromide
9.567	9.059	10.617	23370392	4.59	19.23		5 Nitrate as N
14.184	13.201	15.451	173988961	34.17	27.81		6 Sulfate
			509186527			Totals	

Total Unknown Area% = 1.72

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0015.d
 Lims ID: 280-69589-D-2 DU
 Client ID:
 Sample Type: DU
 Inject. Date: 21-May-2015 14:31:00 ALS Bottle#: 0 Worklist Smp#: 8
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-008
 Misc. Info.: 14583
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK023

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.617	3.609	0.008	2943542		0.2739	
2 Chloride	5.309	5.309	0.000	300008815		21.7	
3 Nitrite as N		6.276				ND	
4 Bromide	8.201	8.126	0.075	103023		0.0615	
5 Nitrate as N	9.567	9.459	0.108	23370392		0.9455	
7 Orthophosphate as P		11.692				ND	
6 Sulfate	14.184	14.101	0.083	173988961		19.9	

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0015.d

Injection Date: 21-May-2015 14:31:00 Instrument ID: WC_IonChrom11

Operator ID:

Lims ID: 280-69589-D-2 DU

Worklist Smp#: 8

Client ID:

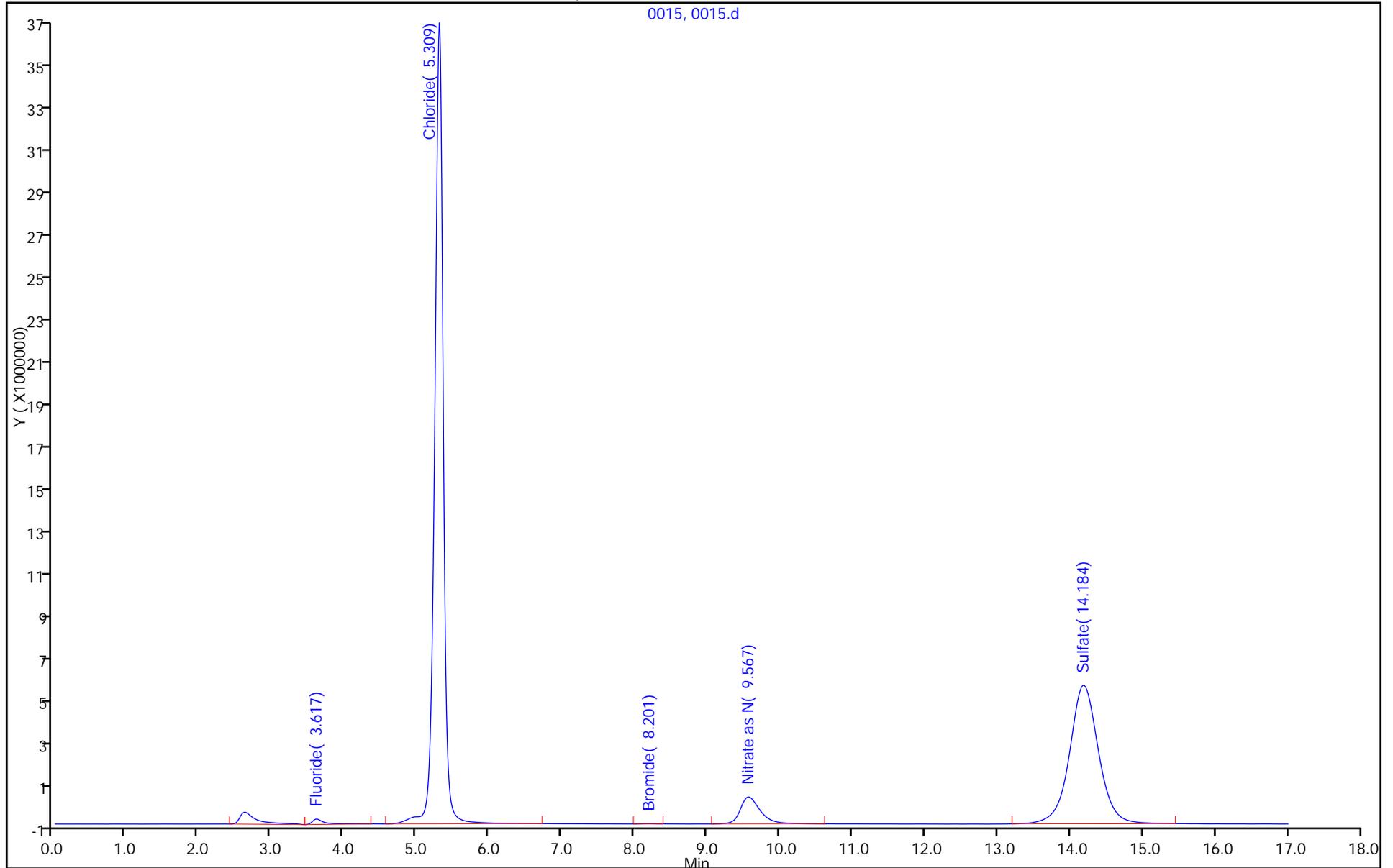
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0016.d
 Lims ID: 280-69589-D-2 MS
 Client ID:
 Sample Type: MS
 Inject. Date: 21-May-2015 14:51:00 ALS Bottle#: 0 Worklist Smp#: 9
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-009
 Misc. Info.: 22273
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK023

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.625	2.409	3.409	13614909	0.93	15.54		
3.617	3.409	4.625	73054745	5.01	9.51		1 Fluoride
5.342	4.634	5.967	667801730	45.79	8.79		2 Chloride
6.309	5.967	7.509	104370408	7.16	11.58		3 Nitrite as N
8.150	7.709	8.867	21090999	1.45	15.03		4 Bromide
9.450	8.875	10.925	154317976	10.58	18.77		5 Nitrate as N
11.825	11.142	13.159	36612988	2.51	36.92		7 Orthophosphate as P
14.150	13.192	15.675	387666159	26.58	27.22		6 Sulfate
			1458529914			Totals	

Total Unknown Area% = 0.93

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0016.d
 Lims ID: 280-69589-D-2 MS
 Client ID:
 Sample Type: MS
 Inject. Date: 21-May-2015 14:51:00 ALS Bottle#: 0 Worklist Smp#: 9
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-009
 Misc. Info.: 22273
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK023

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.617	3.609	0.008	73054745	5.00	5.11	
2 Chloride	5.342	5.309	0.033	667801730	25.0	47.4	
3 Nitrite as N	6.309	6.276	0.033	104370408	5.00	4.72	
4 Bromide	8.150	8.126	0.024	21090999	5.00	5.18	
5 Nitrate as N	9.450	9.459	-0.009	154317976	5.00	5.99	
7 Orthophosphate as P	11.825	11.692	0.133	36612988	5.00	4.45	
6 Sulfate	14.150	14.101	0.049	387666159	25.0	43.6	

Reagents:

ICMS/MSD WEEK_00321 Amount Added: 0.05 Units: mL

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0016.d

Injection Date: 21-May-2015 14:51:00 Instrument ID: WC_IonChrom11

Operator ID:

Lims ID: 280-69589-D-2 MS

Worklist Smp#: 9

Client ID:

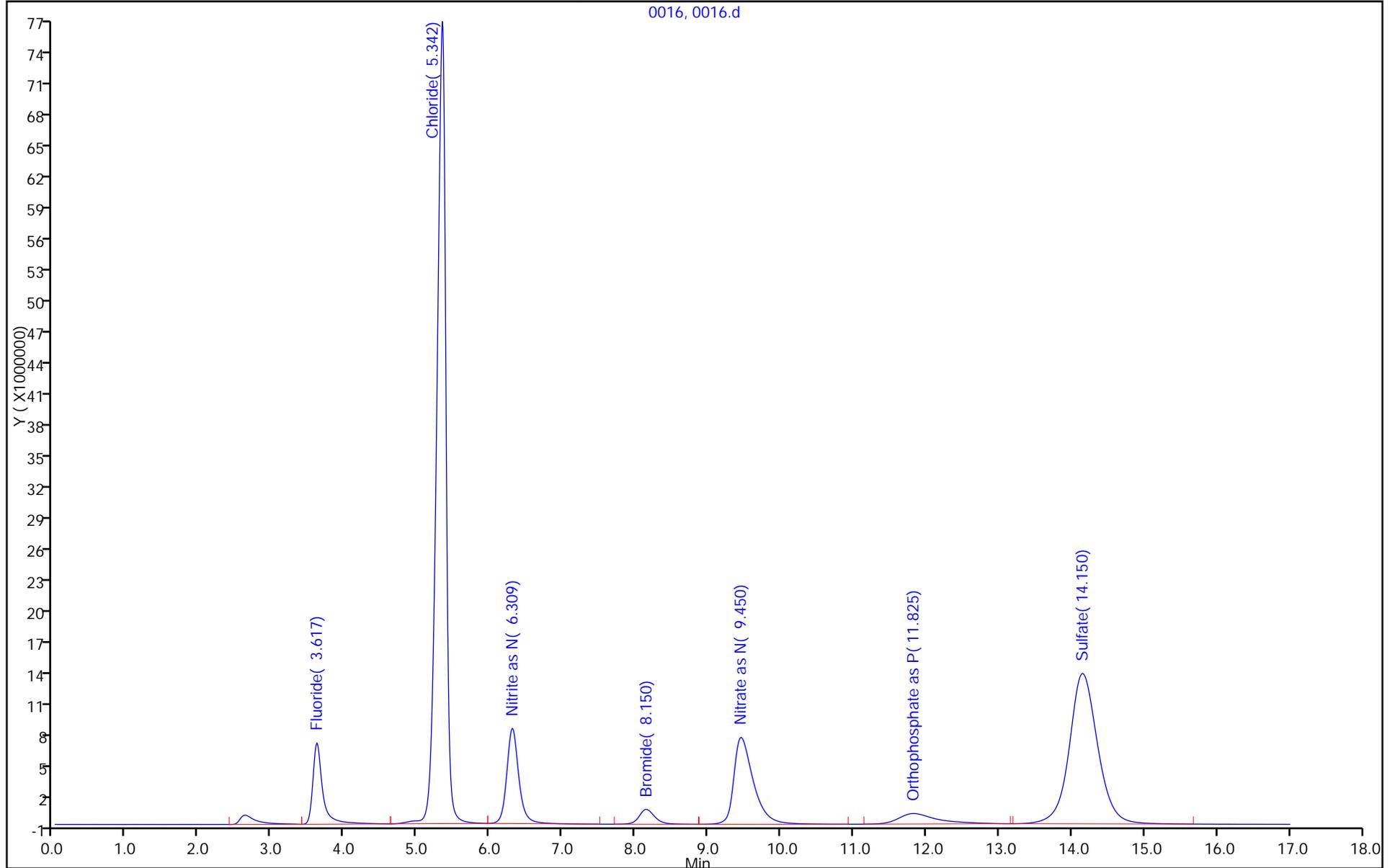
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0017.d
 Lims ID: 280-69589-D-2 MSD
 Client ID:
 Sample Type: MSD
 Inject. Date: 21-May-2015 15:11:00 ALS Bottle#: 0 Worklist Smp#: 10
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-010
 Misc. Info.: 1903
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK023

Detector: 0005

Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.625	2.392	3.400	13641385	0.93	15.44		
3.617	3.409	4.609	73338014	5.03	9.44		1 Fluoride
5.342	4.625	5.959	667625067	45.75	8.78		2 Chloride
6.300	5.959	7.492	105992443	7.26	11.60		3 Nitrite as N
8.142	7.700	8.892	21189540	1.45	15.05		4 Bromide
9.442	8.900	10.617	153915759	10.55	18.70		5 Nitrate as N
11.825	11.134	13.134	36174298	2.48	36.90		7 Orthophosphate as P
14.150	13.209	15.667	387255497	26.54	27.17		6 Sulfate
			1459132003			Totals	

Total Unknown Area% = 0.93

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0017.d
 Lims ID: 280-69589-D-2 MSD
 Client ID:
 Sample Type: MSD
 Inject. Date: 21-May-2015 15:11:00 ALS Bottle#: 0 Worklist Smp#: 10
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-010
 Misc. Info.: 1903
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK023

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.617	3.609	0.008	73338014	5.00	5.13	
2 Chloride	5.342	5.309	0.033	667625067	25.0	47.4	
3 Nitrite as N	6.300	6.276	0.024	105992443	5.00	4.80	
4 Bromide	8.142	8.126	0.016	21189540	5.00	5.20	
5 Nitrate as N	9.442	9.459	-0.017	153915759	5.00	5.97	
7 Orthophosphate as P	11.825	11.692	0.133	36174298	5.00	4.39	
6 Sulfate	14.150	14.101	0.049	387255497	25.0	43.5	

Reagents:

ICMS/MSD WEEK_00321 Amount Added: 0.05 Units: mL

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0017.d

Injection Date: 21-May-2015 15:11:00 Instrument ID: WC_IonChrom11

Operator ID:

Lims ID: 280-69589-D-2 MSD

Worklist Smp#: 10

Client ID:

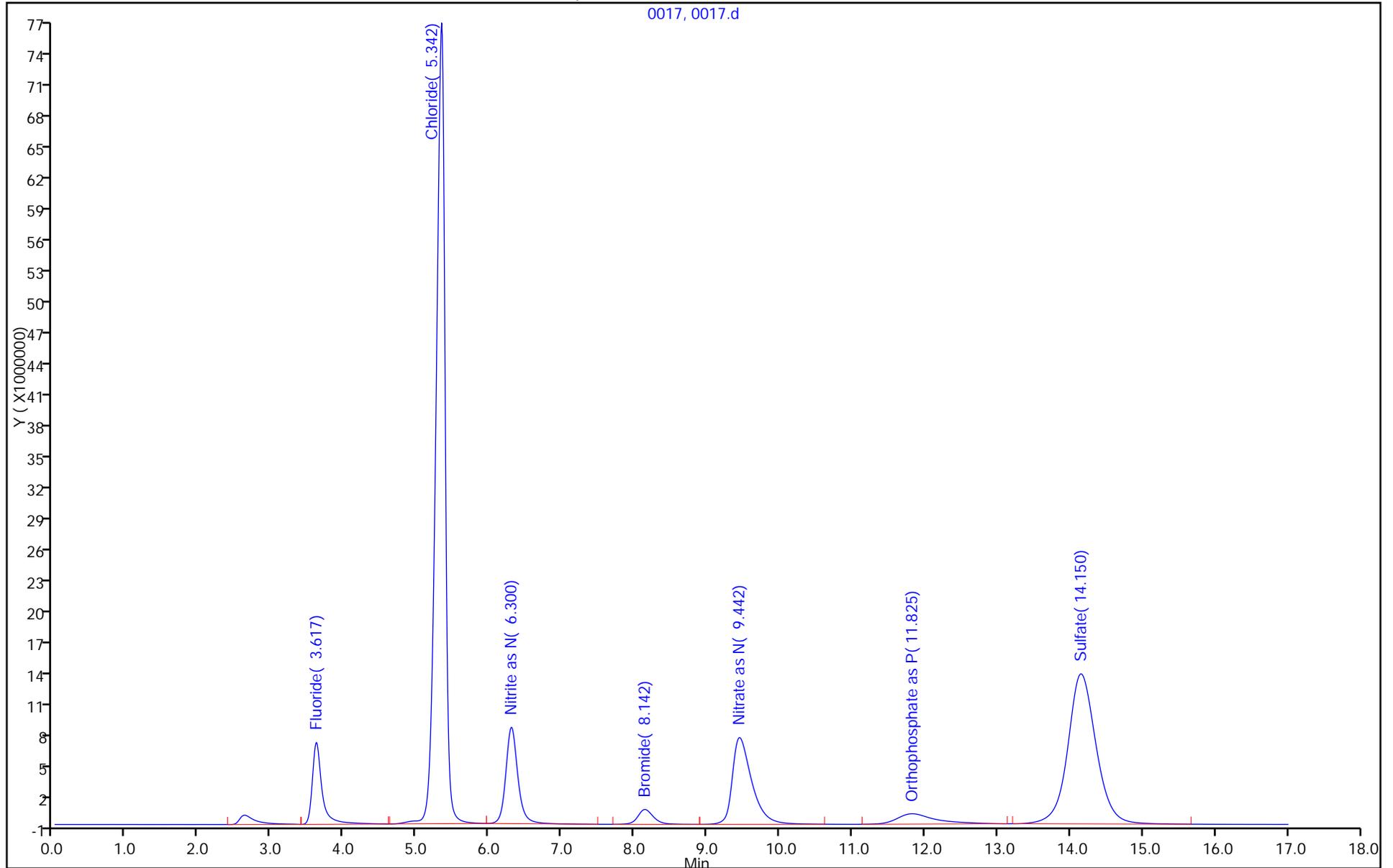
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0024.d
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 21-May-2015 17:31:00 ALS Bottle#: 0 Worklist Smp#: 17
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-017
 Misc. Info.: 29337
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 22-May-2015 14:11:30 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK023

Detector: 0005

Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.625	2.392	3.359	10027463	0.38	14.23		
3.609	3.359	4.817	74199041	2.78	8.71		1 Fluoride
5.334	4.834	5.950	1413256500	52.90	10.88		2 Chloride
6.284	5.950	7.492	109044354	4.08	11.73		3 Nitrite as N
8.125	7.667	8.825	20549457	0.77	15.08		4 Bromide
9.450	8.909	10.842	127547819	4.77	18.84		5 Nitrate as N
11.692	10.992	12.800	42860220	1.60	25.47		7 Orthophosphate as P
14.100	13.025	16.067	874273760	32.72	27.19		6 Sulfate
			2671758614			Totals	

Total Unknown Area% = 0.38

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
CCV, Cal Verification Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0024.d
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 21-May-2015 17:31:00 ALS Bottle#: 0 Worklist Smp#: 17
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-017
 Misc. Info.: 29337
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 22-May-2015 14:11:30 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK023
 Start Cal Date: 12-May-2015 10:50:00
 End Cal Date: 12-May-2015 12:29:00

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D	%Rec
1 Fluoride	5.00	0.0	5.19	14839808	3.7	10	104
2 Chloride	100.0	0.025	99.5	14132565	-0.5	10	100
3 Nitrite as N	5.00	0.008	4.93	21808871	-1.4	10	99
4 Bromide	5.00	-0.001	5.05	4109891	0.9	10	101
5 Nitrate as N	5.00	-0.009	4.96	25509564	-0.8	10	99
7 Orthophosphate as P	5.00	0.0	5.19	8572044	3.7	10	104
6 Sulfate	100.0	-0.001	97.5	8742738	-2.5	10	98

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0024.d
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 21-May-2015 17:31:00 ALS Bottle#: 0 Worklist Smp#: 17
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-017
 Misc. Info.: 29337
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 22-May-2015 14:11:30 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK023

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.609	3.609	0.000	74199041	5.00	5.19	
2 Chloride	5.334	5.309	0.025	1413256500	100.0	99.5	
3 Nitrite as N	6.284	6.276	0.008	109044354	5.00	4.93	
4 Bromide	8.125	8.126	-0.001	20549457	5.00	5.05	
5 Nitrate as N	9.450	9.459	-0.009	127547819	5.00	4.96	
7 Orthophosphate as P	11.692	11.692	0.000	42860220	5.00	5.19	
6 Sulfate	14.100	14.101	-0.001	874273760	100.0	97.5	

Reagents:

IC LCS_00266 Amount Added: 5.00 Units: mL

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0024.d

Injection Date: 21-May-2015 17:31:00 Instrument ID: WC_IonChrom11

Lims ID: ccv

Operator ID:

Client ID:

Worklist Smp#: 17

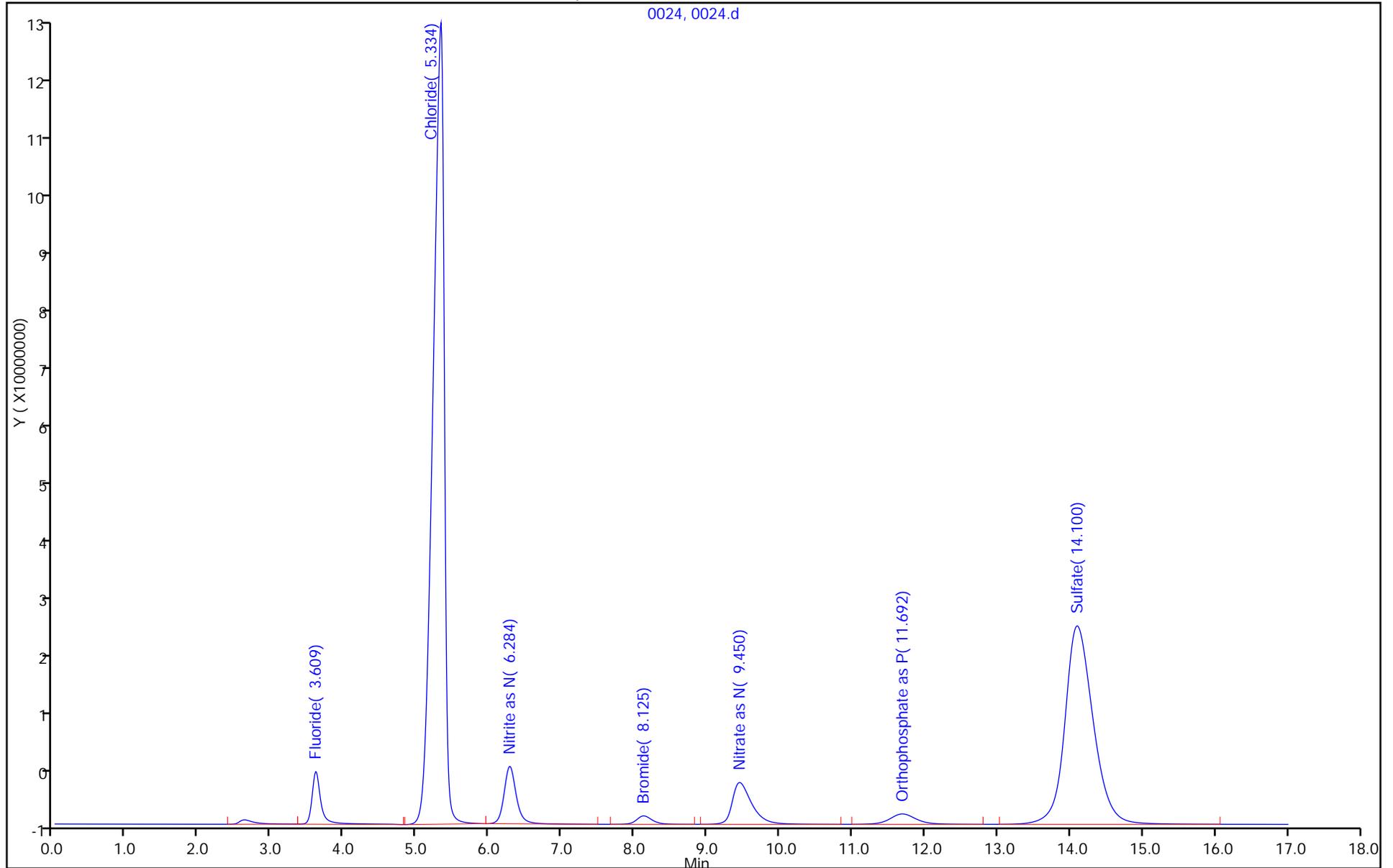
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0025.d
 Lims ID: ccb
 Client ID:
 Sample Type: CCB
 Inject. Date: 21-May-2015 17:50:00 ALS Bottle#: 0 Worklist Smp#: 18
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-018
 Misc. Info.: 21903
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 22-May-2015 14:11:30 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK023

Detector: 0005
 Number of peaks found: 4

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.634	2.409	3.317	4891661	78.53	14.36		
3.592	3.476	3.817	112538	1.81	7.75		1 Fluoride
5.201	5.026	5.442	406535	6.53	8.33		2 Chloride
14.217	13.859	14.659	818128	13.13	23.94		6 Sulfate
			6228862			Totals	

Total Unknown Area% = 78.53

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
 Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0025.d
 Lims ID: ccb
 Client ID:
 Sample Type: CCB
 Inject. Date: 21-May-2015 17:50:00 ALS Bottle#: 0 Worklist Smp#: 18
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-018
 Misc. Info.: 21903
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions
 Last Update: 22-May-2015 14:11:30 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK023

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.592	3.609	-0.017	112538		0.0787	
2 Chloride	5.201	5.309	-0.108	406535		0.7142	
3 Nitrite as N		6.276				ND	
4 Bromide		8.126				ND	
5 Nitrate as N		9.459				ND	
7 Orthophosphate as P		11.692				ND	
6 Sulfate	14.217	14.101	0.116	818128		0.6620	

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0025.d

Injection Date: 21-May-2015 17:50:00 Instrument ID: WC_IonChrom11

Operator ID:

Lims ID: ccb

Worklist Smp#: 18

Client ID:

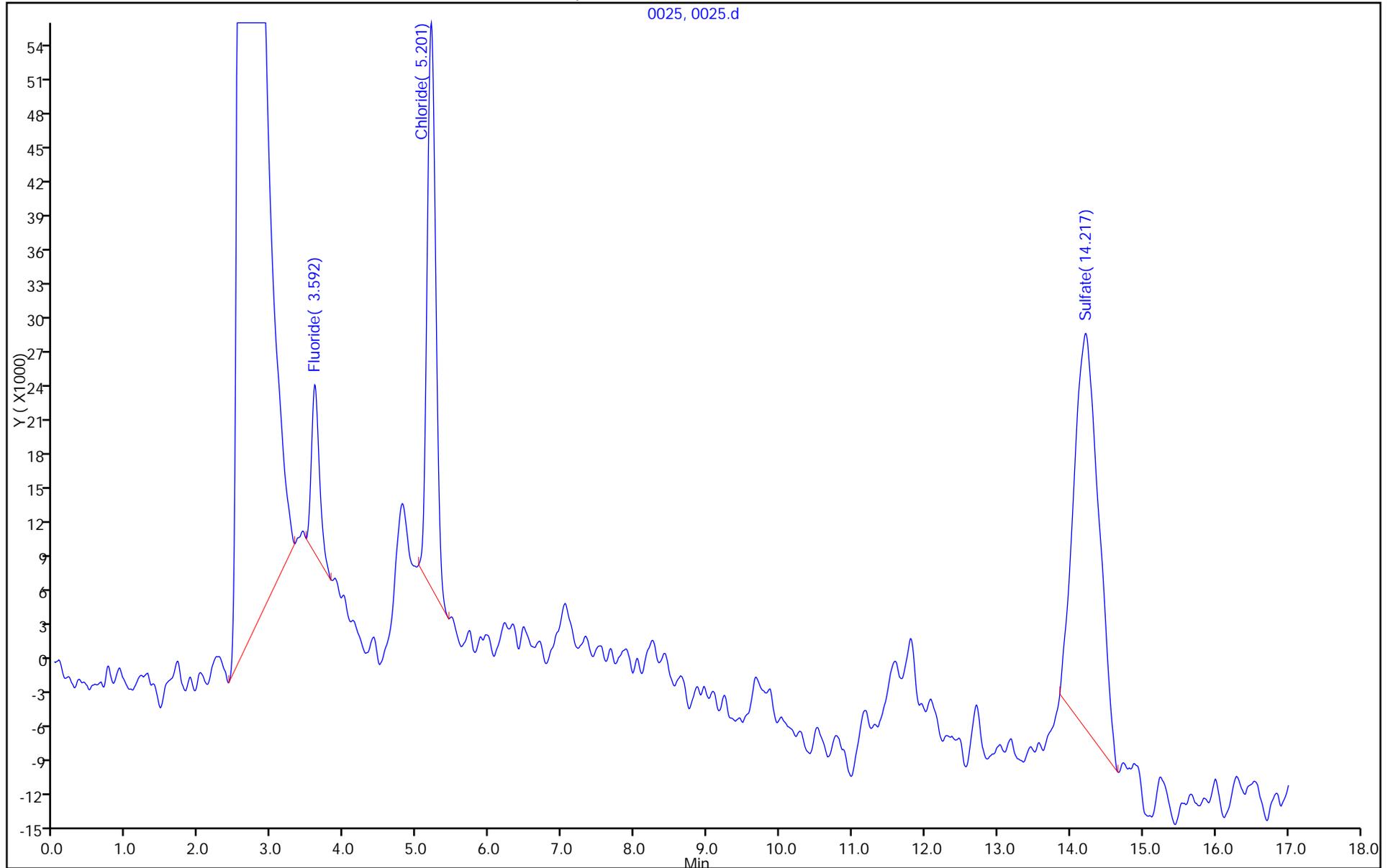
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions



0025, 0025.d

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\Anions_IC11.m

Instrument: WC_IonChrom11

Lims Location: 280

Lock State: Unlocked

Cpnd Order: Retention Time

Integrator: Falcon

Last Modified: 13-May-2015 08:33:16

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b

Inj Date : 12-May-2015 10:50:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

Compound	Wet - Anions				Wet - Anions 28D			
	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride	-102909	1450431		0.999	-102909	1450431		0.999
2 Chloride	-980707	1430168		0.998	-980707	1430168		0.998
3 Nitrite as N	-167423	2245335		0.999	-167423	2245335		0.999
4 Bromide	-149341	4102336		1.000	-149341	4102336		1.000
5 Nitrate as N	-117536	2595966		0.999	-117536	2595966		0.999
7 Orthophosphate as P	-906667	8440322		0.999	-906667	8440322		0.999
6 Sulfate	-515131	9017913		0.996	-515131	9017913		0.996

New cal

TestAmerica

IC Instrument Information

WL: 34924 Inst ID: 11 Analysis Date: 05/12 Analyst: TP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
=	<u>69065</u>	<u>2</u>	F Cl NO2 Br NO3 PO4 SO4	(MS.D)	1
=	<u>69075</u>	<u>4</u>	F Cl NO2 Br NO3 PO4 SO4	MS.D	
=	<u>69074</u>	<u>2</u>	F Cl NO2 Br NO3 PO4 SO4	MS.D	
→	<u>69083</u>	<u>6</u>	F Cl NO2 Br NO3 PO4 SO4	(MS.D)	8
	<u>69080</u>	<u>3</u>	F Cl NO2 Br NO3 PO4 SO4	MS.D	<u>Client</u>
=			F Cl NO2 Br NO3 PO4 SO4	MS.D	
=			F Cl NO2 Br NO3 PO4 SO4	MS.D	
=			F Cl NO2 Br NO3 PO4 SO4	MS.D	
=			F Cl NO2 Br NO3 PO4 SO4	MS.D	
=			F Cl NO2 Br NO3 PO4 SO4	MS.D	
=			F Cl NO2 Br NO3 PO4 SO4	MS.D	
=			F Cl NO2 Br NO3 PO4 SO4	MS.D	
=			F Cl NO2 Br NO3 PO4 SO4	MS.D	
=			F Cl NO2 Br NO3 PO4 SO4	MS.D	
=			F Cl NO2 Br NO3 PO4 SO4	MS.D	

AMEC
↓
need dilution log

Dilutions	Job No.	Samples	Anions	Dilution	Reason
-	<u>69065</u>	<u>2</u>	F Cl NO2 Br NO3 PO4 SO4	<u>20x</u>	<u>high</u>
-	<u>69075</u>	<u>4,5,7</u> ^{NO3}	F Cl NO2 Br NO3 PO4 SO4	<u>5x</u>	<u>high</u>
-	<u>69074</u>	<u>7</u>	F Cl NO2 Br NO3 PO4 SO4	<u>5x</u>	<u>high</u>
-	<u>69083</u>	<u>4</u>	F Cl NO2 Br NO3 PO4 SO4	<u>5x</u>	<u>high</u>
-	<u>69083</u>	<u>5</u>	F Cl NO2 Br NO3 PO4 SO4	<u>20x</u>	<u>high</u>
-	<u>69083</u>	<u>8,9</u>	F Cl NO2 Br NO3 PO4 SO4	<u>5x</u>	<u>high</u>
			F Cl NO2 Br NO3 PO4 SO4		
			F Cl NO2 Br NO3 PO4 SO4		
			F Cl NO2 Br NO3 PO4 SO4		

W
24

TestAmerica Denver
Priority Form

Log-in Number: 69065

Project Manager: P.M.

Client: Southern - AC

Time Zone:
 EDT/EST ~~CDT/CST~~ MDT/MST PDT/PST
 Other:

Receiving	Initials: <u>MB</u>	Date/Time: <u>9:50 17 May 15</u>
Dept. Rep. / Analyst	<u>MB</u>	<u>051215 1437</u>

HP	Analysis	Min Volume needed (mL)	Method	Sample(s)	MS/MSD Required
Priority I	Chromium (VI) (24 h) [Circle Method]	100	3500-Cr B/D or 7196A		
	Hydrazine (Waters & Solids)	100	Denver		
	Biological Oxygen Demand	1000	5210 B	112	
	Carbonaceous BOD (cBOD)	1000	5210 B		
Priority II (48 h)	Cyanide Preservation	100	335.4 / 4500-CN		
	Color	100	2120 B		
	Nitrite by Spec (COC May Only list Nitrate)	100	353.2/4500-NO ₂ B		
	Orthophosphate by Spec.	50	355.1*		
	Nitrate by IC	50	300.0/9056	112	
	Nitrite by IC	50	300.0/9056		
	Orthophosphate by IC	50	300.0/9056*		
	Settleable Solids	1000	SM2S-10F		
Priority III	Turbidity	50	150.1		
	Dissolved Oxygen	100	4500-O G		
	Free Carbon Dioxide (CO ₂)	100	4500-CO ₂		
	Sulfite (SO ₃ ²⁻)	100	4500-SO ₃ B		
	pH (water)	100	4500-H B/9040/9045		
	pH (soil Hanford)	5 g	9045C		
Ferrous Iron	100	3500-FE D			

Potentially Dissolved Metals (wait 8-96 hours to filter):

Preserve: 112 diss ml's

Filter: 112 diss ml's

Split:

Composite: NO₂ NO₃ Br F Cl SO₄

Crush:

3360 Encore Terraces

Check if required: Coring device un-extruded which requires extrusion and freezing within 48 hours.

Check if required: A plug of dirt in an empty vial -- place in the freezer within 48 hours for preservation

Sample	1	2																		
Date	5/11	7																		
Time	1440	1426																		

Sample																				
Date																				
Time																				

Tests	Samples	Rapidly Expiring	24 TAT	48 TAT	72 TAT	Other:
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*Orthophosphate by methods 300.0 and 365.1 require field filtration within 15 minutes of collection.

TestAmerica Denver
Priority Form

Log-in Number: 69075

Project Manager: E.W.

Client: FPM McConnell

Time Zone:
 EDT/EST CDT/EST MDT/MST PDT/PST
 Other: _____

Receiving <u>md</u>	Initials: <u>md</u>	Date/Time: <u>0950 12 May 15</u>
Dept. Rep. / Analyst <u>md</u>		<u>5/12/15 1010</u>

HT	Analysis	Min Volume needed (mL)	Method	Sample(s)	MS/MSD Required
Priority I	Chromium (VI) (24 h) [Circle Method]	100	3500-Cr B/D or 7196A		
	Hydrazine (Waters & Solids)	100	Denver		
	Biological Oxygen Demand	1000	5210 B		
	Carbonaceous BOD (cBOD)	1000	5210 B		
Priority II (48 h)	Cyanide Preservation	100	335.4 / 4500-CN		
	Color	100	2120 B		
	Nitrite by Spec (COC May Only list Nitrate)	100	353.2/4500-NO ₂ B		
	Orthophosphate by Spec.	50	365.1*		
	Nitrate by IC	50	300.0/9056	4-7	
	Nitrite by IC	50	300.0/9056	"	
	Orthophosphate by IC	50	300.0/9056	"	
	Settleable Solids	1000	SM2540F		
Priority III	Turbidity	50	180.1		
	Dissolved Oxygen	100	4500-O G		
	Free Carbon Dioxide (CO ₂)	100	4500-CO ₂		
	Sulfite (SO ₃ ²⁻)	100	4500-SO ₃ B		
	pH (water)	100	4500-H B/9040/9045		
	pH (soil Hanford)	5 g	9045C		
	Ferrous Iron	100	3500-FE D		

Potentially Dissolved Metals (wait 8-96 hours to filter):

Preserve:

Filter:

Split:

Composite:
NO₂ NO₃ PO₄
Cl SO₄

Crush:

S260 Encores Check if required: Coring device un-extruded which requires extrusion and freezing within 48 hours.
 Terracores Check if required: A plug of dirt in an empty vial -- place in the freezer within 48 hours for preservation

Sample	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>															
Date	<u>5/11</u>			<u>7</u>															
Time	<u>1315</u>	<u>1430</u>	<u>1445</u>	<u>1046</u>															

Sample																			
Date																			
Time																			

Tests	Samples	Rapidly Expiring	24 TAT	48 TAT	72 TAT	Other:
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*Orthophosphate by methods 300.0 and 365.1 require field filtration within 15 minutes of collection.

TestAmerica Denver
Priority Form

Log-in Number: C64674
Client: McConnell

Project Manager: E.W.

Time Zone:
EDT/EST CDT/GST MDT/MST PDT/PST
Other:

Receiving	Initials: <u>EW</u>	Date/Time: <u>9:50 2 May 15</u>
Dept. Rep. / Analyst	<u>MB</u>	<u>051215 1437</u>

HT	Analysis	Min Volume needed (mL)	Method	Sample(s)	MS/MSD Required
Priority I	Chromium (VI) (24 h) [Circle Method]	100	3500-Cr B/D or 7196A		
	Hydrazine (Waters & Solids)	100	Denver		
	Biological Oxygen Demand	1000	5210 B		
	Carbonaceous BOD (cBOD)	1000	5210 B		
Priority II (48 h)	Cyanide Preservation	100	335.4 / 4500-CN		
	Color	100	2120 B		
	Nitrite by Spec (COC May Only list Nitrate)	100	353.2/4500-NO ₂ B		
	Orthophosphate by Spec.	50	365.1*		
	Nitrate by IC	50	300.0/9056	718	
	Nitrite by IC	50	300.0/9056		
	Orthophosphate by IC	50	300.0/9056*		
	Settleable Solids	1000	SM2540F		
Priority III	Turbidity	50	180.1		
	Dissolved Oxygen	100	4500-O G		
	Free Carbon Dioxide (CO ₂)	100	4500-CO ₂		
	Sulfite (SO ₃ ²⁻)	100	4500-SO ₃ B		
	pH (water)	100	4500-H B:9040,9045		
	pH (soil Hanford)	5 g	9045C		
Ferrous Iron	100	3500-FE D			

Potentially Dissolved Metals (wait 8-96 hours to filter):

Preserve:

Filter:

Split:

Composite: NO₂ NO₃
Cl SO₄

Crush:

5260 Encores
Terracotes

Check if required: Coring device un-extruded which requires extrusion and freezing within 48 hours.

Check if required: A plug of dirt in an empty vial -- place in the freezer within 48 hours for preservation

Sample	<u>7</u>	<u>8</u>																		
Date	<u>5/11</u>	<u>7</u>																		
Time	<u>920</u>	<u>940</u>																		

Sample																				
Date																				
Time																				

Tests	Samples	Rapidly Expiring	24 TAT	48 TAT	72 TAT	Other:
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*Orthophosphate by methods 300.0 and 365.1 require field filtration within 15 minutes of collection.

**TestAmerica Denver
Priority Form**

Log-in Number: 69083

Project Manager: J. L.

Client: AMEC MCAS Yuma

Time Zone:
 EDT/EST CDT/CST MDT/MST PDT/PST
 Other: _____

Receiving	Initials: <u>JW</u>	Date/Time:
Dept. Rep. / Analyst	<u>TK</u>	<u>9:50 (2 May 15)</u> <u>1840 05/21/15</u>

HT	Analysis	Min Volume needed (mL)	Method	Sample(s)	MS/MSD Required
Priority I	Chromium (VI) (24 h) [Circle Method]	100	3500-Cr B/D or 7196A		
	Hydrazine (Waters & Solids)	100	Denver		
	Biological Oxygen Demand	1000	5210 B		
	Carbonaceous BOD (cBOD)	1000	5210 B		
Priority II (48 h)	Cyanide Preservation	100	335.4/4500-CN		
	Color	100	2120 B		
	Nitrite by Spec (COC May Only list Nitrate)	100	353.2/4500-NO ₂ B		
	Orthophosphate by Spec.	50	365.1*		
	Nitrate by IC	50	300.0/9056		
	<u>Nitrite by IC</u>	50	<u>300.0/9056</u>	<u>1, 2, 4, 5, 8, 9</u>	<u>8</u>
	Orthophosphate by IC	50	300.0/9056*		
	Settleable Solids	1000	SM2540F		
Priority III	Turbidity	50	180.1		
	Dissolved Oxygen	100	4500-O G		
	Free Carbon Dioxide (CO ₂)	100	4500-CO ₂		
	Sulfite (SO ₃ ²⁻)	100	4500-SO ₃ B		
	<u>pH (water)</u>	100	<u>4500-H B/9040/9045</u>	<u>4, 5, 8</u>	
	<u>pH (soil Hanford)</u>	5 g	9045C		
<u>Ferrous Iron</u>	100	<u>3500-FE D</u>	<u>1, 2, 4, 5, 8, 9</u>	<u>8</u>	

Potentially Dissolved Metals (wait 8-96 hours to filter):

Preserve:

Filter:

Split: # 8 MS/MSD

Composite: NO₃ Cl SO₄

Crush:

8260 Encores
Terracores

Check if required: Coring device un-extruded which requires extrusion and freezing within 48 hours.

Check if required: A plug of dirt in an empty vial -- place in the freezer within 48 hours for preservation

Sample	<u>1</u>	<u>2</u>	<u>4</u>	<u>5</u>	<u>8</u>	<u>9</u>													
Date	<u>5/11</u>																		
Time	<u>9:00</u>	<u>9:10</u>	<u>8:50</u>	<u>10:5</u>	<u>14:30</u>	<u>14:40</u>													

Sample																			
Date																			
Time																			

Tests	Samples	Rapidly Expiring	24 TAT	48 TAT	72 TAT	Other:

*Orthophosphate by methods 300.0 and 365.1 require field filtration within 15 minutes of collection.

TestAmerica Denver
Priority Form

Log-in Number: 69080

Project Manager: P.M.

Client: Sangre de Cristo

Time Zone:

Receiving	Initials: <u>(AV)</u>	Date/Time: <u>9:50 12 May 15</u>
Dept. Rep. / Analyst	<u>TS</u>	<u>1840 05/21/15</u>

EDT/EST	CDT/CST	<u>MDT/MST</u>	PDT/PST
Other:			

HT	Analysis	Min Volume needed (mL)	Method	Sample(s)	MS/MSD Required
Priority I	Chromium (VI) (24 h) [Circle Method]	100	3500-Cr B/D or 7196A		
	Hydrazine (Waters & Solids)	100	Denver		
	Biological Oxygen Demand	1000	5210 B		
	Carbonaceous BOD (cBOD)	1000	5210 B		
Priority II (48 h)	Cyanide Preservation	100	335.4 / 4500-CN		
	Color	100	2120 B		
	Nitrite by Spec (COC May Only list Nitrate)	100	353.2/4500-NO ₂ B		
	Orthophosphate by Spec.	50	365.1*		
	<u>Nitrate by IC</u>	50	<u>300.0/9056</u>	<u>1-3</u>	
	Nitrite by IC	50	300.0/9056		
	Orthophosphate by IC	50	300.0/9056*		
	Settleable Solids	1000	SM2540F		
Priority III	Turbidity	50	180.1		
	Dissolved Oxygen	100	4500-O G		
	Free Carbon Dioxide (CO ₂)	100	4500-CO ₂		
	Sulfite (SO ₃ ²⁻)	100	4500-SO ₃ B		
	pH (water)	100	4500-H B/9040/9045		
	pH (soil Hanford)	5 g	9045C		
	Ferrous Iron	100	3500-FE D		

Potentially Dissolved Metals (wait 8-96 hours to filter):

Preserve:

Filter:

Split:

Composite: NO3 CI

Crush:

8260 Encores
Terracores

Check if required: Coring device un-extruded which requires extrusion and freezing within 48 hours.

Check if required: A plug of dirt in an empty vial -- place in the freezer within 48 hours for preservation

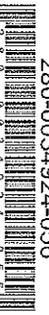
Sample	<u>1</u>	<u>2</u>	<u>3</u>																
Date	<u>5/11</u>																		
Time	<u>9:55</u>	<u>10:05</u>	<u>10:18</u>																

Sample																			
Date																			
Time																			

Tests	Samples	Rapidly Expiring	24 TAT	48 TAT	72 TAT	Other:
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*Orthophosphate by methods 300.0 and 365.1 require field filtration within 15 minutes of collection.

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Dilution Factor
280-0034924-033	#33 280-69080-A-1		Client		1.000000	
280-0034924-034	#34 280-69080-A-2		Client		1.000000	
280-0034924-035	#35 280-69080-A-3		Client		1.000000	
280-0034924-036	#36 CCV	IC LCS_00258	CCV		1.000000	
280-0034924-037	#37 ccb		CCB		1.000000	
280-0034924-038	#38 280-69083-D-8 DU		DU		1.000000	
280-0034924-039	#39 280-69083-E-8 MS	ICMS/MSD WEEK_00319	MS		1.000000	
280-0034924-040	#40 280-69083-E-8 MSD	ICMS/MSD WEEK_00319	MSD		1.000000	
280-0034924-041	#41 280-69065-C-2		Client		20.00	
280-0034924-042	#42 280-69075-D-4		Client		5.000000	
280-0034924-043	#43 280-69075-D-5		Client		5.000000	
280-0034924-044	#44 280-69075-D-7		Client		5.000000	
280-0034924-045	#45 280-69074-C-7		Client		5.000000	
280-0034924-046	#46 CCV	IC LCS_00258	CCV		1.000000	
280-0034924-047	#47 ccb		CCB		1.000000	
280-0034924-048	#48 280-69083-A-4		Client		5.000000	
280-0034924-049	#49 280-69083-A-5		Client		20.00	
280-0034924-050	#50 280-69083-D-8		Client		5.000000	

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Dilution Factor
280-0034924-051 	#51 280-69083-D-8 DU 		DU		5.000000	
280-0034924-052 	#52 280-69083-E-8 MS 	ICMS/MSD WEEK_00319	MS		5.000000	
280-0034924-053 	#53 280-69083-E-8 MSD 	ICMS/MSD WEEK_00319	MSD		5.000000	
280-0034924-054 	#54 280-69083-C-9 		Client		5.000000	
280-0034924-055 	#55 CCV 	IC LCS_00258	CCV		1.000000	
280-0034924-056 	#56 CCB 		CCB		1.000000	

TestAmerica Laboratories
Worklist Report

Worklist Name: 051215 cal
 Instrument Name: WC_\IonChrom11
 Injection Volume: 25.00
 Analysis Type: Semi VOA
 Batch Directory: \\DENCHROM\ChromData\WC_\IonChrom11\20150512-34924.b
 Upload Directory: \\CORPTAL\SAPP061280-DN-RawData\WetChem\IonChrom11\300.0_28D

Worklist Number: 34924
 Chrom Method: Anions_IC11
 Units: ul

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Dilution Factor
280-0034924-001	# 1 RTC	IC LCS_00258	RTC		1.000000	
280-0034924-002	# 2 std L1	IC Cal low_00085 IC CAL cl/s04_00047	IC	1	1.000000	
280-0034924-003	# 3 std L2	IC CAL cl/s04_00047 IC Cal low_00085	IC	2	1.000000	
280-0034924-004	# 4 std L3	IC Cal low_00085 IC CAL cl/s04_00047	IC	3	1.000000	
280-0034924-005	# 5 std L4	IC CAL cl/s04_00047 IC Cal low_00085	IC	4	1.000000	
280-0034924-006	# 6 std L5	IC Cal low_00085 IC CAL cl/s04_00047	IC	5	1.000000	
280-0034924-007	# 7 std L6	IC CAL cl/s04_00047 IC Cal low_00085	IC	6	1.000000	
280-0034924-008	# 8 ICV	IC ICV 5_00075 IC SO4 ICV_00012 IC CL ICV_00010	ICV		1.000000	
280-0034924-009	# 9 ICB		ICB		1.000000	
280-0034924-010	#10 MRL	IC Cal low_00085 IC CAL cl/s04_00047	MRL		1.000000	
280-0034924-011	#11 LCS	IC LCS_00258	LCS		1.000000	
280-0034924-012	#12 LCSD	IC LCS_00258	LCSD		1.000000	
280-0034924-013	#13 MB		MB		1.000000	
280-0034924-014	#14 280-69065-A-1		Client		1.000000	

Worklist ID	Lims ID	Sample Reagents	Sample Type	Cal Lvl	Fraction	Dilution Factor
280-0034924-015	#15 280-69065-A-1 DU		DU		1.000000	
280-0034924-016	#16 280-69065-A-1 MS	ICMS/MSD WEEK_00319	MS		1.000000	
280-0034924-017	#17 280-69065-A-1 MSD	ICMS/MSD WEEK_00319	MSD		1.000000	
280-0034924-018	#18 280-69065-C-2		Client		1.000000	
280-0034924-019	#19 280-69075-D-4		Client		1.000000	
280-0034924-020	#20 280-69075-D-5		Client		1.000000	
280-0034924-021	#21 280-69075-D-6		Client		1.000000	
280-0034924-022	#22 280-69075-D-7		Client		1.000000	
280-0034924-023	#23 280-69074-C-7		Client		1.000000	
280-0034924-024	#24 CCV	IC LCS_00258	CCV		1.000000	
280-0034924-025	#25 ccb		CCB		1.000000	
280-0034924-026	#26 280-69074-B-8		Client		1.000000	
280-0034924-027	#27 280-69083-A-1		Client		1.000000	
280-0034924-028	#28 280-69083-A-2		Client		1.000000	
280-0034924-029	#29 280-69083-A-4		Client		1.000000	
280-0034924-030	#30 280-69083-A-5		Client		2.000000	
280-0034924-031	#31 280-69083-D-8		Client		1.000000	
280-0034924-032	#32 280-69083-C-9		Client		1.000000	

Data Review Checklist – Calibration Methods

Method(s): 300/9056	Instrument: ICI	Run Date: 5/12/15	Analyst Initials: TP/AM	SOP #: WC-0020
	Prep Batch(s): NA		Analytical Batch: 277037-277038	

A. Calibration/Instrument Run QC	Yes	No	N/A	2nd
Minimum of five standards in ICAL or as specified in SOP?	X			
Correlation coefficient ≥ 0.995 ?	X			
Second-source ICV analyzed, and recovery within acceptance limits?	X			
ICB analyzed immediately after the ICV & results < the RL	X			
CCV analyzed after every ten samples & recovery within acceptance limits?	X			
CCB analyzed after every CCV & results < RL?	X			
Absolute value of the x intercept is < ± ½ the RL?	X			
Elution order verified? (anions)	X			
Were manual integrations performed correctly and properly documented? (anions)	X			
B. Sample Results				
All samples greater than highest calibration standard diluted and reanalyzed?	X			
Do associated RLs/MDLs reflect dilutions or limited sample volume?	X			
All reported results bracketed by in control CCV results?	X			
Sample analyses done within holding time? If no, create HTV NCM. NCM #	X			
Are any results over calibration range? If reported, are results E flagged?		X		
Are J values the result of over dilution?		X		
Client requirements reviewed and met?	X			
Were data manually transcribed from instrument printouts or benchsheets into TALS verified 100% including dilution factors, significant figures and correct units? (If Applicable)	X			
Do the prep and analysis dates in TALS reflect the actual dates?	X			
Were peak assignments verified? (anions)	X			
Were manual integrations performed correctly and properly documented? (anions)	X			
C. Preparation/Matrix QC				
Method blank < ½ RL or all reported samples > 10x blank have NCM? - (COD, Phenol MB <RL)	X			
Method blank < ½ RL or NCM provided? - (COD, Phenol MB <RL)	X			
LCS/LCSD run for batch and within QC limits?	X			
MS/MSD run at required frequency? Verify that MS/MSD failures are matrix issues and not analytical issues such as not spiking or not applying the appropriate dilution.	X			
DUP run at required frequency?	X			

Menu or Tab	Check	1 st	2 nd
Analyst Desktop	Create or open batch		
View Batch Info	Confirm all fields are populated	X	
	Edit Analyst ID as is appropriate	✓	
Run log	Verify the correct samples and QC are run at the correct frequency (i.e., 10 samples per CCV)	✓	
Sample List	Confirm all Graphics have been uploaded (IC only)	✓	
	In edit mode, If prompted to process samples, select "Yes"	✓	
	Confirm samples are identified (Blue P icon)	✓	
	Confirm correct analysis date and time are listed	✓	
	Confirm samples have the correct dilution factors. TOC – Check for manual dilutions not entered into instrument run log, Auto dilutions (Aut. Dil.) and Injections volume (Inj. Vol.)	✓	
	Confirm samples have the correct method chain assigned	✓	
	Confirm that solid samples have the % moisture listed	NA	
Worksheet	Populate all appropriate fields in the worksheet. Initial Amount, Final Amount, pH, etc.	✓	
Reagents	Confirm reagents are correct and properly associated with QC samples. Confirm that reagent amounts are correct. If reagents are new, verify that the correct COA has been attached to the source standard	✓	
Results	Check for special instructions (Login, Method and Sample comments) - red notebook icon	✓	
	Check for any QC failures	✓	
	Set status for samples based on QC and sample results info (i.e., set to primary analysis with passing QC or reject samples without passing QC or samples that are over-range).	✓	
	Address any results that are reported without passing QC with an NCM	✓	
QC Links	Confirm QC links are correct	✓	
Hist. Data Check	Check historical data. Print charts for outliers. Take corrective action as is appropriate	✓	
Sample List	Re-calculate data and set to appropriate review status (1 st or 2 nd level review)	✓	
	Scan and attach raw data & save batch	✓	

Analyst: <i>[Signature]</i>	Date: 5/13/15	2nd Level Reviewer: TP	Date: 05/13/15
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TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0002.d
 Lims ID: std L1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 12-May-2015 10:50:00 ALS Bottle#: 0 Worklist Smp#: 2
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0034924-002
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 13-May-2015 08:12:18 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK022

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.625	2.450	2.942	228227	0.82	11.97		
3.634	3.450	4.125	2216086	7.95	10.69		1 Fluoride
5.259	4.959	5.684	9101649	32.63	9.38		2 Chloride
6.367	6.042	6.867	3480115	12.48	12.36		3 Nitrite as N
8.292	8.050	8.709	689335	2.47	15.15		4 Bromide
9.800	9.359	10.475	4769383	17.10	20.23		5 Nitrate as N
11.992	11.642	12.575	1023233	3.67	24.90		7 Orthophosphate as P
14.559	13.992	15.284	6383321	22.89	27.96		6 Sulfate
			27891349			Totals	

Total Unknown Area% = 0.82

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0002.d
 Lims ID: std L1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 12-May-2015 10:50:00 ALS Bottle#: 0 Worklist Smp#: 2
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0034924-002
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 13-May-2015 08:12:18 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.634	3.634	0.000	2216086	0.2000	0.2237	
2 Chloride	5.259	5.375	-0.116	9101649	1.00	1.32	
3 Nitrite as N	6.367	6.350	0.017	3480115	0.2000	0.2296	
4 Bromide	8.292	8.225	0.067	689335	0.2000	0.2044	
5 Nitrate as N	9.800	9.592	0.208	4769383	0.2000	0.2290	
7 Orthophosphate as P	11.992	11.934	0.058	1023233	0.2000	0.2287	
6 Sulfate	14.559	14.425	0.134	6383321	1.00	1.28	

Reagents:

IC Cal low_00085 Amount Added: 0.02 Units: mL
 IC CAL cl/so4_00047 Amount Added: 0.02 Units: mL

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0002.d

Injection Date: 12-May-2015 10:50:00 Instrument ID: WC_IonChrom11

Operator ID:

Lims ID: std L1

Worklist Smp#: 2

Client ID:

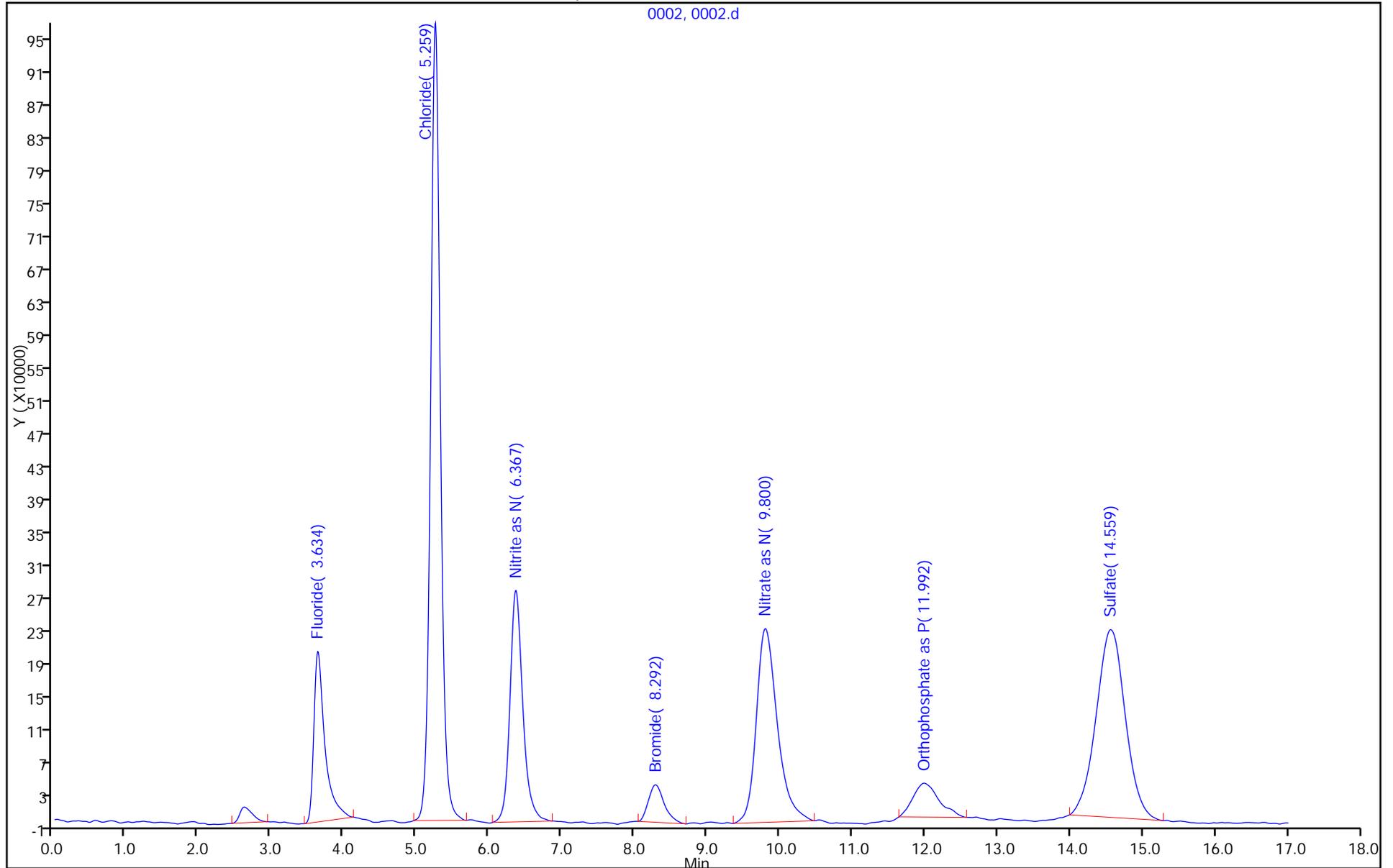
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0003.d
 Lims ID: std L2
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 12-May-2015 11:10:00 ALS Bottle#: 0 Worklist Smp#: 3
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0034924-003
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 13-May-2015 08:12:18 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK022

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.625	2.442	2.942	339248	0.48	12.35		
3.634	3.409	4.375	5895163	8.37	11.13		1 Fluoride
5.259	4.917	5.834	22915821	32.54	9.34		2 Chloride
6.359	6.009	6.984	8942378	12.70	12.35		3 Nitrite as N
8.275	7.925	8.759	1863386	2.65	15.68		4 Bromide
9.750	9.250	10.550	11182082	15.88	19.92		5 Nitrate as N
11.975	11.550	12.834	3069057	4.36	28.08		7 Orthophosphate as P
14.559	13.859	15.450	16218033	23.03	28.51		6 Sulfate
			70425168			Totals	

Total Unknown Area% = 0.48

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0003.d
 Lims ID: std L2
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 12-May-2015 11:10:00 ALS Bottle#: 0 Worklist Smp#: 3
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0034924-003
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 13-May-2015 08:12:18 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.634	3.634	0.000	5895163	0.5000	0.4774	
2 Chloride	5.259	5.375	-0.116	22915821	2.50	2.29	
3 Nitrite as N	6.359	6.350	0.009	8942378	0.5000	0.4728	
4 Bromide	8.275	8.225	0.050	1863386	0.5000	0.4906	
5 Nitrate as N	9.750	9.592	0.158	11182082	0.5000	0.4760	
7 Orthophosphate as P	11.975	11.934	0.041	3069057	0.5000	0.4710	
6 Sulfate	14.559	14.425	0.134	16218033	2.50	2.37	

Reagents:

IC CAL cl/so4_00047 Amount Added: 0.05 Units: mL
 IC Cal low_00085 Amount Added: 0.05 Units: mL

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0003.d

Injection Date: 12-May-2015 11:10:00 Instrument ID: WC_IonChrom11

Lims ID: std L2

Operator ID:

Worklist Smp#: 3

Client ID:

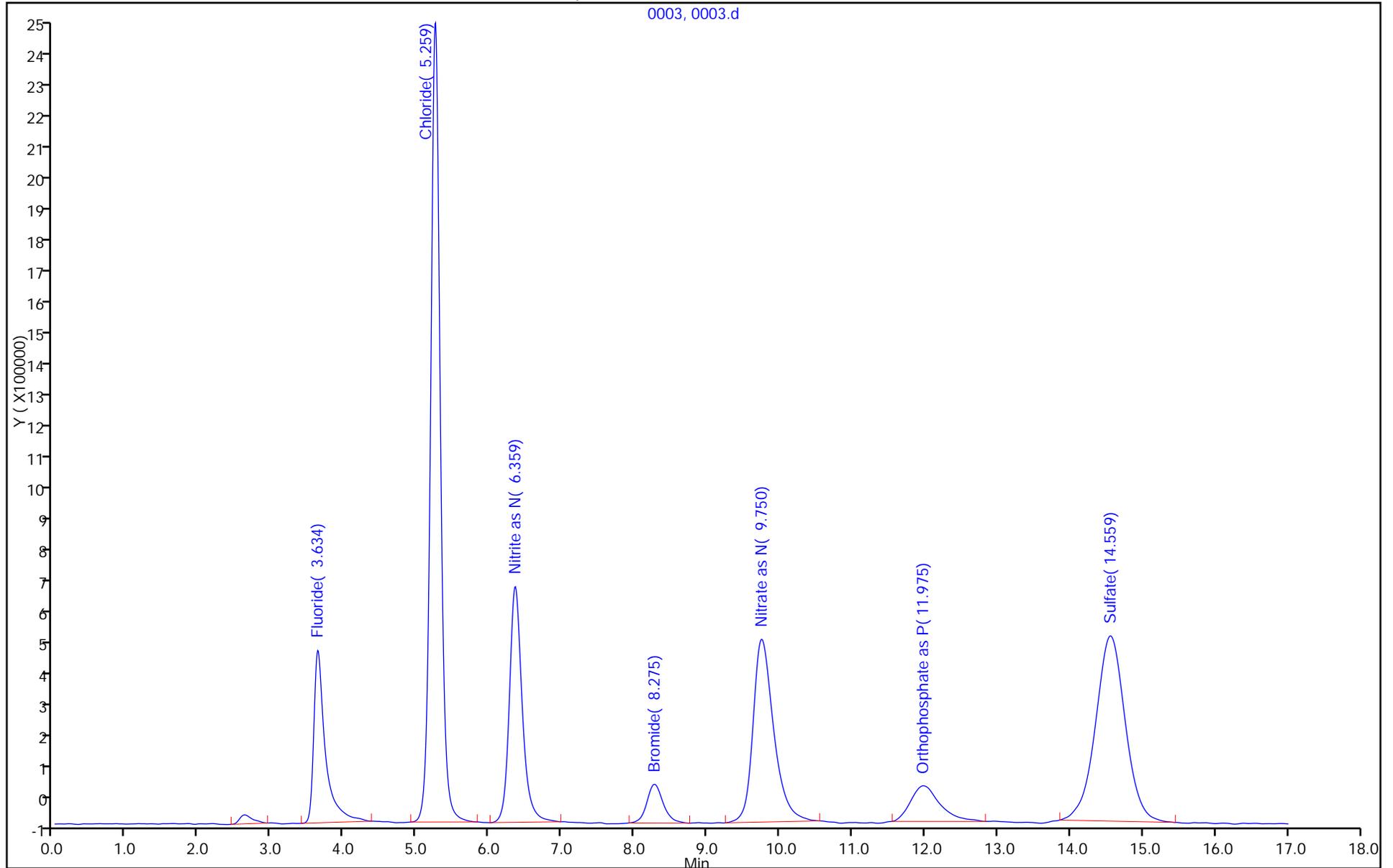
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0004.d
 Lims ID: std L3
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 12-May-2015 11:29:00 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0034924-004
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 13-May-2015 08:12:19 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK022

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.625	2.442	3.067	590194	0.40	13.31		
3.642	3.392	4.600	12620421	8.55	11.16		1 Fluoride
5.267	4.909	5.950	48155436	32.64	9.25		2 Chloride
6.359	6.009	7.184	19102742	12.95	12.36		3 Nitrite as N
8.284	7.817	8.850	3950635	2.68	15.82		4 Bromide
9.734	9.234	10.617	22723305	15.40	19.74		5 Nitrate as N
11.967	11.450	12.950	6921250	4.69	27.95		7 Orthophosphate as P
14.550	13.725	15.459	33474146	22.69	28.73		6 Sulfate
			147538129			Totals	

Total Unknown Area% = 0.40

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0004.d
 Lims ID: std L3
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 12-May-2015 11:29:00 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0034924-004
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 13-May-2015 08:12:19 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.642	3.634	0.008	12620421	1.00	0.9411	
2 Chloride	5.267	5.375	-0.108	48155436	5.00	4.05	
3 Nitrite as N	6.359	6.350	0.009	19102742	1.00	0.9253	
4 Bromide	8.284	8.225	0.059	3950635	1.00	1.00	
5 Nitrate as N	9.734	9.592	0.142	22723305	1.00	0.9206	
7 Orthophosphate as P	11.967	11.934	0.033	6921250	1.00	0.9274	
6 Sulfate	14.550	14.425	0.125	33474146	5.00	4.28	

Reagents:

IC Cal low_00085 Amount Added: 0.10 Units: mL
 IC CAL cl/so4_00047 Amount Added: 0.10 Units: mL

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0004.d

Injection Date: 12-May-2015 11:29:00 Instrument ID: WC_IonChrom11

Lims ID: std L3

Operator ID:
Worklist Smp#: 4

Client ID:

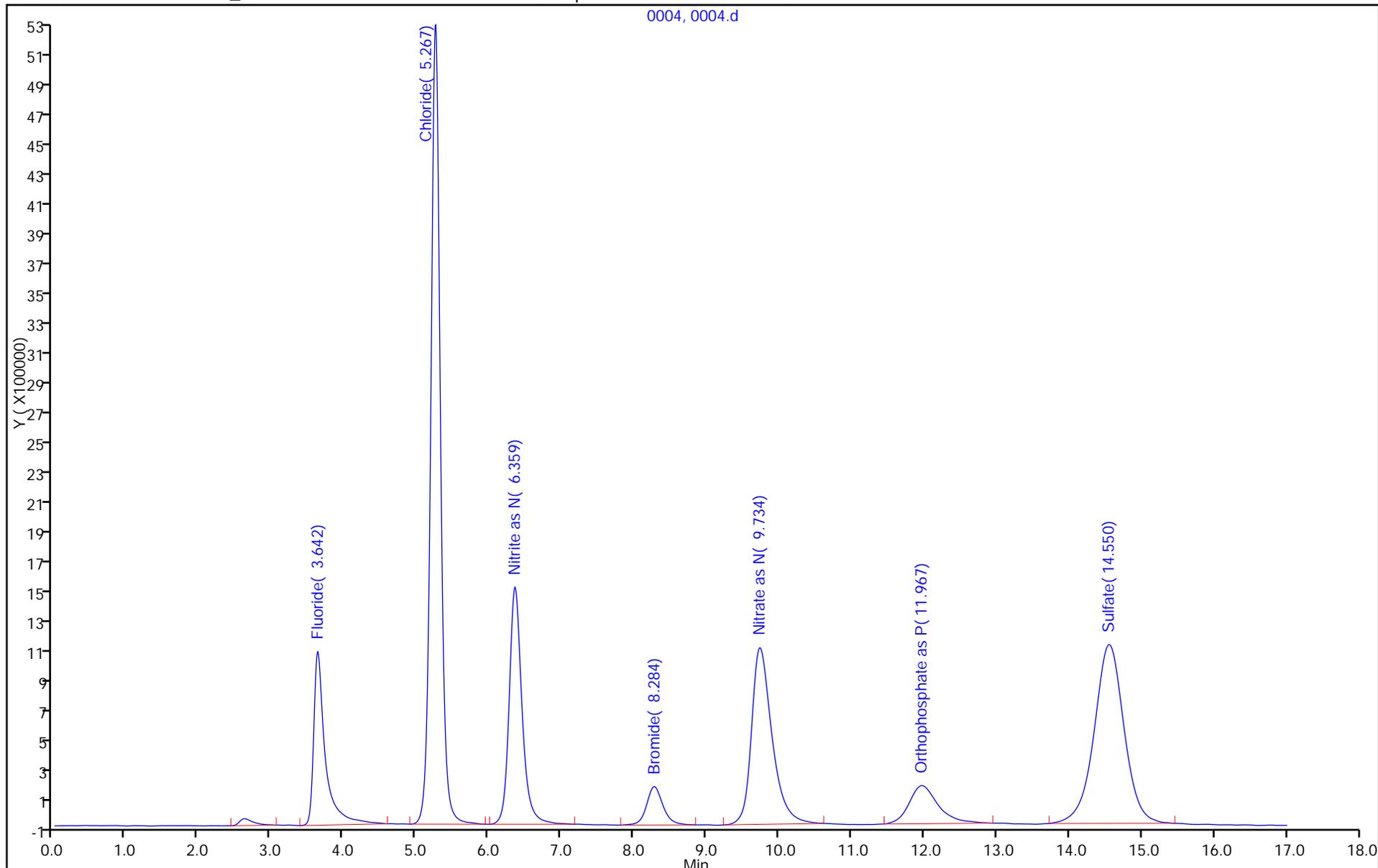
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0005.d
 Lims ID: std L4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 12-May-2015 11:49:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0034924-005
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 13-May-2015 08:12:19 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK022

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.626	2.326	3.276	5197103	0.34	14.30		
3.634	3.367	4.876	55079272	3.55	10.30		1 Fluoride
5.342	4.884	6.009	784912072	50.64	9.76		2 Chloride
6.359	6.009	7.592	84216335	5.43	12.07		3 Nitrite as N
8.259	7.809	9.042	16179637	1.04	15.57		4 Bromide
9.642	9.076	11.042	98302011	6.34	19.53		5 Nitrate as N
11.934	11.292	13.267	31731755	2.05	26.73		7 Orthophosphate as P
14.467	13.392	16.384	474276294	30.60	27.91		6 Sulfate
			1549894479			Totals	

Total Unknown Area% = 0.34

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
IC, ICal Standard Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0005.d
 Lims ID: std L4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 12-May-2015 11:49:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0034924-005
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 13-May-2015 08:12:19 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK022
 Start Cal Date: 12-May-2015 10:50:00
 End Cal Date: 12-May-2015 12:29:00

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D	%Rec
1 Fluoride	4.00	0.0	3.87	13769818	-3.3	0	97
2 Chloride	60.0	0.0	55.6	13081868	-7.4	0	93
3 Nitrite as N	4.00	0.0	3.83	21054084	-4.4	0	96
4 Bromide	4.00	0.0	3.98	4044909	-0.5	0	100
5 Nitrate as N	4.00	0.0	3.83	24575503	-4.2	0	96
7 Orthophosphate as P	4.00	0.0	3.87	7932939	-3.3	0	97
6 Sulfate	60.0	0.0	53.2	7904605	-11.4	0	89

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0005.d
 Lims ID: std L4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 12-May-2015 11:49:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0034924-005
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 13-May-2015 08:12:19 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.634	3.634	0.000	55079272	4.00	3.87	
2 Chloride	5.342	5.342	0.000	784912072	60.0	55.6	
3 Nitrite as N	6.359	6.359	0.000	84216335	4.00	3.83	
4 Bromide	8.259	8.259	0.000	16179637	4.00	3.98	
5 Nitrate as N	9.642	9.642	0.000	98302011	4.00	3.83	
7 Orthophosphate as P	11.934	11.934	0.000	31731755	4.00	3.87	
6 Sulfate	14.467	14.467	0.000	474276294	60.0	53.2	

Reagents:

IC CAL cl/so4_00047 Amount Added: 1.20 Units: mL
 IC Cal low_00085 Amount Added: 0.40 Units: mL

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0005.d

Injection Date: 12-May-2015 11:49:00 Instrument ID: WC_IonChrom11

Lims ID: std L4

Operator ID:

Client ID:

Worklist Smp#: 5

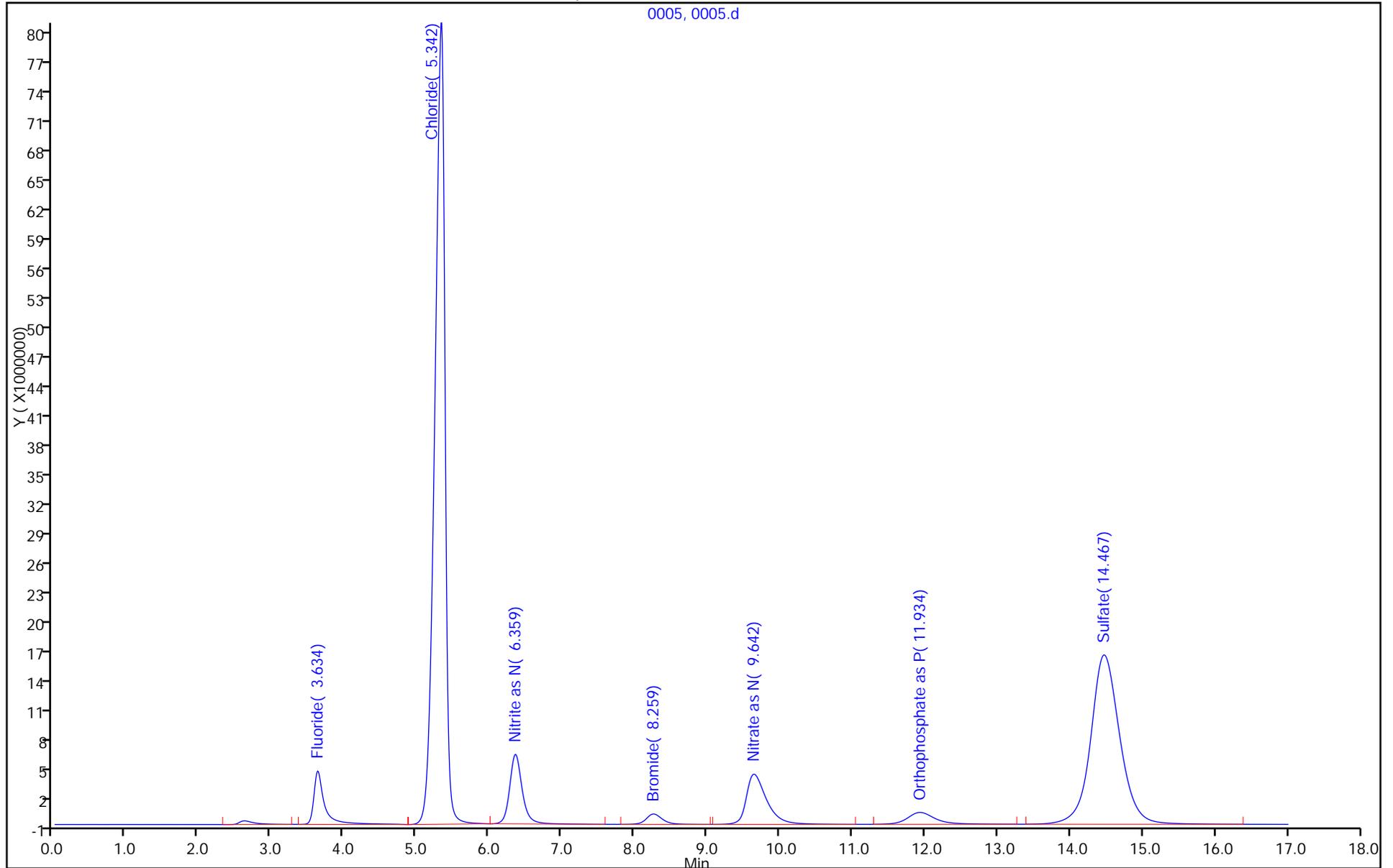
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0006.d
 Lims ID: std L5
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 12-May-2015 12:09:00 ALS Bottle#: 0 Worklist Smp#: 6
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0034924-006
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 13-May-2015 08:12:21 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK022

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.617	2.392	3.334	10350199	0.31	14.45		
3.634	3.334	4.875	114666306	3.40	9.77		1 Fluoride
5.409	4.884	6.017	1704678484	50.55	11.85		2 Chloride
6.367	6.017	7.625	178122810	5.28	11.94		3 Nitrite as N
8.242	7.775	9.025	32589142	0.97	15.34		4 Bromide
9.575	9.034	11.000	206614392	6.13	19.28		5 Nitrate as N
11.909	11.217	13.217	66577060	1.97	25.82		7 Orthophosphate as P
14.392	13.309	16.667	1058961982	31.40	27.90		6 Sulfate
			3372560375			Totals	

Total Unknown Area% = 0.31

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0006.d
 Lims ID: std L5
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 12-May-2015 12:09:00 ALS Bottle#: 0 Worklist Smp#: 6
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0034924-006
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 13-May-2015 08:12:21 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.634	3.634	0.000	114666306	8.00	7.98	
2 Chloride	5.409	5.342	0.067	1704678484	120.0	119.9	
3 Nitrite as N	6.367	6.359	0.008	178122810	8.00	8.01	
4 Bromide	8.242	8.259	-0.017	32589142	8.00	7.98	
5 Nitrate as N	9.575	9.642	-0.067	206614392	8.00	8.00	
7 Orthophosphate as P	11.909	11.934	-0.025	66577060	8.00	8.00	
6 Sulfate	14.392	14.467	-0.075	1058961982	120.0	118.0	

Reagents:

IC Cal low_00085 Amount Added: 0.80 Units: mL
 IC CAL cl/so4_00047 Amount Added: 2.40 Units: mL

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0006.d

Injection Date: 12-May-2015 12:09:00 Instrument ID: WC_IonChrom11

Lims ID: std L5

Operator ID:

Client ID:

Worklist Smp#: 6

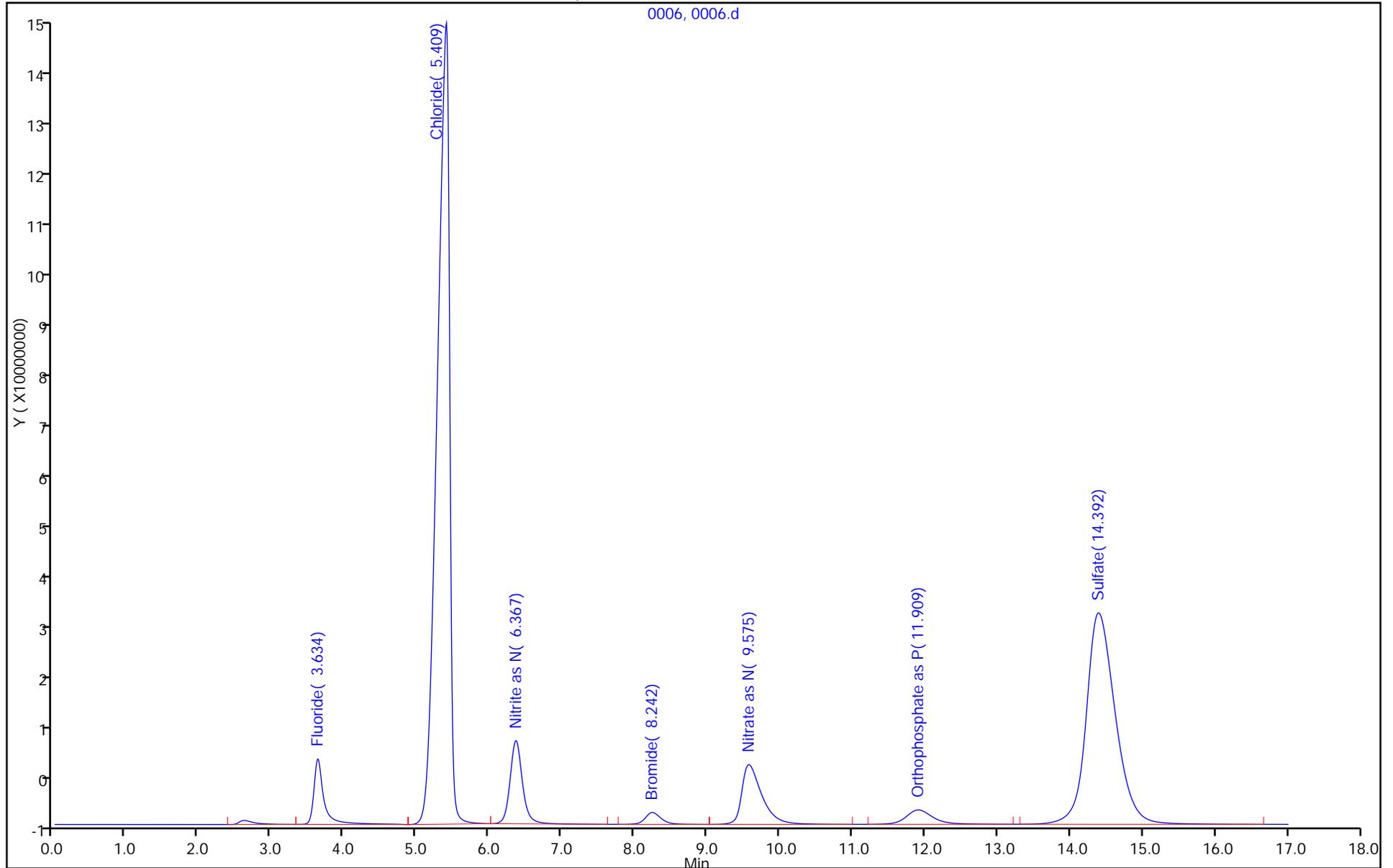
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions 28D



0006, 0006.d

TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Lims ID: std L6
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 12-May-2015 12:29:00 ALS Bottle#: 0 Worklist Smp#: 7
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0034924-007
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 13-May-2015 08:12:22 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK022

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.617	2.409	3.350	16125372	0.29	14.51		
3.634	3.350	4.867	147100410	2.63	9.82		1 Fluoride
5.475	4.884	6.025	2927598130	52.34	14.49		2 Chloride
6.367	6.025	7.567	228234803	4.08	11.79		3 Nitrite as N
8.225	7.759	8.975	41057180	0.73	15.16		4 Bromide
9.534	8.992	11.009	264600693	4.73	19.18		5 Nitrate as N
11.892	11.159	13.142	85273268	1.52	25.41		7 Orthophosphate as P
14.300	13.217	17.009	1883237662	33.67	28.77		6 Sulfate
			5593227518			Totals	

Total Unknown Area% = 0.29

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Lims ID: std L6
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 12-May-2015 12:29:00 ALS Bottle#: 0 Worklist Smp#: 7
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0034924-007
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 13-May-2015 08:12:22 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK022

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.634	3.634	0.000	147100410	10.0	10.2	
2 Chloride	5.475	5.342	0.133	2927598130	200.0	205.4	
3 Nitrite as N	6.367	6.359	0.008	228234803	10.0	10.2	
4 Bromide	8.225	8.259	-0.034	41057180	10.0	10.0	
5 Nitrate as N	9.534	9.642	-0.108	264600693	10.0	10.2	
7 Orthophosphate as P	11.892	11.934	-0.042	85273268	10.0	10.2	
6 Sulfate	14.300	14.467	-0.167	1883237662	200.0	209.4	

Reagents:

IC CAL cl/so4_00047 Amount Added: 4.00 Units: mL
 IC Cal low_00085 Amount Added: 1.00 Units: mL

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d

Injection Date: 12-May-2015 12:29:00 Instrument ID: WC_IonChrom11

Operator ID:

Lims ID: std L6

Worklist Smp#: 7

Client ID:

Injection Vol: 25.0 ul

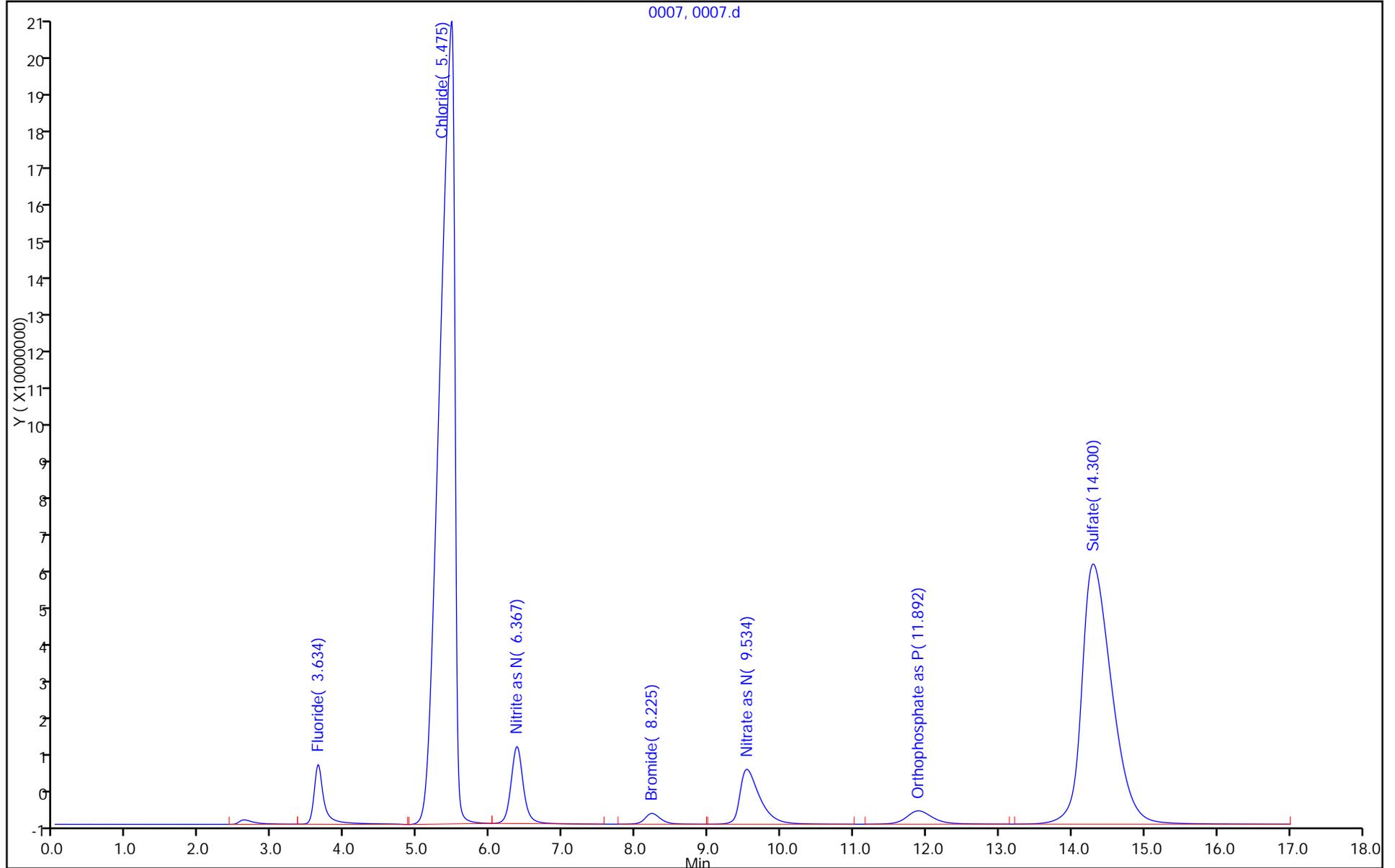
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions 28D

0007, 0007.d



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0008.d
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 21-May-2015 09:45:00 ALS Bottle#: 0 Worklist Smp#: 1
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-001
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist:
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK023

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.634	2.409	3.334	7047665	0.33	14.21		
3.609	3.334	4.826	57717058	2.71	9.09		1 Fluoride
5.309	4.842	5.951	1147373937	53.84	10.39		2 Chloride
6.276	5.951	7.476	80246153	3.77	11.75		3 Nitrite as N
8.126	7.709	8.767	16612372	0.78	15.11		4 Bromide
9.459	8.934	10.742	98355445	4.61	18.95		5 Nitrate as N
11.692	11.059	12.776	32737475	1.54	25.63		7 Orthophosphate as P
14.101	13.017	16.026	691144929	32.43	27.15		6 Sulfate
			2131235034			Totals	

Total Unknown Area% = 0.33

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

Data Review Checklist – Calibration Methods				
Method(s): 300 | 9056	Instrument: ICL1	Run Date 05/21/15	Analyst Initials: AB/TP	SOP #: WC-0020
Prep Batch(s): N/A		Analytical Batch: 278518 / 278519		
A. Calibration/Instrument Run QC	Yes	No	N/A	2nd
Minimum of five standards in ICAL or as specified in SOP?	—			
Correlation coefficient ≥ 0.995 ?	—			
Second-source ICV analyzed, and recovery within acceptance limits?	—			/
ICB analyzed immediately after the ICV & results < the RL	—			/
CCV analyzed after every ten samples & recovery within acceptance limits?	—			/
CCB analyzed after every CCV & results < RL?	—			/
Absolute value of the x intercept is $< \pm \frac{1}{2}$ the RL?	—			/
Elution order verified? (anions)	—			/
Were manual integrations performed correctly and properly documented? (anions)	—			/
B. Sample Results				
All samples greater than highest calibration standard diluted and reanalyzed?	—			/
Do associated RLS/MDLs reflect dilutions or limited sample volume?	—			/
All reported results bracketed by in control CCV results?	—			/
Sample analyses done within holding time? If no, create HTV NCM. NCM #	—			/
Are any results over calibration range? If reported, are results E flagged?		—		/
Are J values the result of over dilution?		—		/
Client requirements reviewed and met?	—			/
Were data manually transcribed from instrument printouts or benchsheets into TALS verified 100% including dilution factors, significant figures and correct units? (If Applicable)	—			/
Do the prep and analysis dates in TALS reflect the actual dates?	—			
Were peak assignments verified? (anions)	—			/
Were manual integrations performed correctly and properly documented? (anions)	—			/
C. Preparation/Matrix QC				
Method blank $< \frac{1}{2}$ RL or all reported samples $> 10x$ blank have NCM? - (COD, Phenol MB <RL)	—			/
Method blank $< \frac{1}{2}$ RL or NCM provided? - (COD, Phenol MB <RL)	—			/
LCS/LCSD run for batch and within QC limits?	—			/
MS/MSD run at required frequency? Verify that MS/MSD failures are matrix issues and not analytical issues such as not spiking or not applying the appropriate dilution.	—			/
DUP run at required frequency?	—			/
Menu or Tab	Check		1 st	2 nd
Analyst Desktop	Create or open batch			
View Batch Info	Confirm all fields are populated		—	/
	Edit Analyst ID as is appropriate		—	/
Run log	Verify the correct samples and QC are run at the correct frequency (i.e., 10 samples per CCV)		—	/
Sample List	Confirm all Graphics have been uploaded (IC only)		—	/
	In edit mode, if prompted to process samples, select "Yes"		—	/
	Confirm samples are identified (Blue P Icon)		—	/
	Confirm correct analysis date and time are listed		—	/
	Confirm samples have the correct dilution factors. TOC – Check for manual dilutions not entered into Instrument run log, Auto dilutions (Aut. Dil.) and Injections volume (Inj. Vol.)		—	/
	Confirm samples have the correct method chain assigned		—	/
	Confirm that solid samples have the % moisture listed		N/A	N/A
Worksheet	Populate all appropriate fields in the worksheet. Initial Amount, Final Amount, pH, etc.		—	/
Reagents	Confirm reagents are correct and properly associated with QC samples. Confirm that reagent amounts are correct. If reagents are new, verify that the correct COA has been attached to the source standard		—	/
Results	Check for special instructions (Login, Method and Sample comments) - red notebook icon		—	/
	Check for any QC failures		—	/
	Set status for samples based on QC and sample results info (i.e., set to primary analysis with passing QC or reject samples without passing QC or samples that are over-range).		—	/
	Address any results that are reported without passing QC with an NCM		—	/
QC Links	Confirm QC links are correct		—	/
Hist. Data Check	Check historical data. Print charts for outliners. Take corrective action as is appropriate		—	/
Sample List	Re-calculate data and set to appropriate review status (1 st or 2 nd level review)		—	/
	Scan and attach raw data & save batch		—	/
Analyst: TP	Date: 05/22/15	2nd Level Reviewer: Phyllis Lipen	Date: 05/22/15	

27898 / 19

IC Instrument Information

WL: 35274 Inst ID: 11 Analysis Date: 5/21/15 Analyst: AVY

Rush	Job No.	Samples	Anions	QC Req	HT Exp
9056 300	✓ <u>69589</u>	<u>1</u>	F Cl NO2 Br NO3 PO4 SO4	MS/D 2	<u>5/22</u>
	✓ <u>68998</u>	<u>2</u>	F Cl NO2 Br NO3 PO4 SO4	MS/D	✓ per AB
	✓ <u>69025</u>	<u>3</u>	F Cl NO2 Br NO3 PO4 SO4	MS/D	✓ per Drew
700	✓ <u>69612</u>	<u>5</u>	F <u>Cl</u> NO2 Br <u>NO3</u> PO4 <u>SO4</u>	<u>MS/D</u>	5
300	✓ <u>60-11941</u>	<u>1</u>	F <u>Cl</u> NO2 Br <u>NO3</u> <u>PO4</u> <u>SO4</u>	MS/D	
300	✓ <u>69049</u>	<u>5</u>	F <u>Cl</u> NO2 Br NO3 PO4 <u>SO4</u>	MS/D	
			F Cl NO2 Br NO3 PO4 SO4	MS/D	
			F Cl NO2 Br NO3 PO4 SO4	MS/D	
			F Cl NO2 Br NO3 PO4 SO4	MS/D	
			F Cl NO2 Br NO3 PO4 SO4	MS/D	
			F Cl NO2 Br NO3 PO4 SO4	MS/D	
			F Cl NO2 Br NO3 PO4 SO4	MS/D	
			F Cl NO2 Br NO3 PO4 SO4	MS/D	
			F Cl NO2 Br NO3 PO4 SO4	MS/D	
			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
✓ <u>69612</u>	<u>1,2,3,5</u>	F <u>Cl</u> NO2 Br <u>NO3</u> PO4 <u>SO4</u>	<u>20x</u>	<u>high</u>
✓ <u>69612</u>	<u>4</u>	F <u>Cl</u> NO2 Br <u>NO3</u> PO4 <u>SO4</u>	<u>50x</u>	<u>high</u>
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

29
23
19

Phuriga S.
05/25/2015

Data Review Checklist – Calibration Methods

Method(s): 300 | 9056	Instrument: ICL1	Run Date 05/21/15	Analyst Initials: AB/TP	SOP #: WC-0020
Prep Batch(s): N/A		Analytical Batch: 278518 / 278519		

A. Calibration/Instrument Run QC	Yes	No	N/A	2nd
Minimum of five standards in ICAL or as specified in SOP?	✓			
Correlation coefficient ≥ 0.995 ?	✓			
Second-source ICV analyzed, and recovery within acceptance limits?	✓			
ICB analyzed immediately after the ICV & results < the RL	✓			
CCV analyzed after every ten samples & recovery within acceptance limits?	✓			
CCB analyzed after every CCV & results < RL?	✓			
Absolute value of the x intercept is < ± ½ the RL?	✓			
Elution order verified? (anions)	✓			
Were manual integrations performed correctly and properly documented? (anions)	✓			
B. Sample Results				
All samples greater than highest calibration standard diluted and reanalyzed?	✓			
Do associated RLs/MDLs reflect dilutions or limited sample volume?	✓			
All reported results bracketed by in control CCV results?	✓			
Sample analyses done within holding time? If no, create HTV NCM. NCM #	✓			
Are any results over calibration range? If reported, are results E flagged?		✓		
Are J values the result of over dilution?		✓		
Client requirements reviewed and met?	✓			
Were data manually transcribed from instrument printouts or benchsheets into TALS verified 100% including dilution factors, significant figures and correct units? (If Applicable)	✓			
Do the prep and analysis dates in TALS reflect the actual dates?	✓			
Were peak assignments verified? (anions)	✓			
Were manual integrations performed correctly and properly documented? (anions)	✓			
C. Preparation/Matrix QC				
Method blank < ½ RL or all reported samples > 10x blank have NCM? - (COD, Phenol MB <RL)	✓			
Method blank < ½ RL or NCM provided? - (COD, Phenol MB <RL)	✓			
LCS/LCSD run for batch and within QC limits?	✓			
MS/MSD run at required frequency? Verify that MS/MSD failures are matrix issues and not analytical issues such as not spiking or not applying the appropriate dilution.	✓			
DUP run at required frequency?	✓			

Menu or Tab	Check	1 st	2 nd
Analyst Desktop	Create or open batch		
View Batch Info	Confirm all fields are populated	✓	
	Edit Analyst ID as is appropriate	✓	
Run log	Verify the correct samples and QC are run at the correct frequency (i.e., 10 samples per CCV)	✓	
Sample List	Confirm all Graphics have been uploaded (IC only)	✓	
	In edit mode, if prompted to process samples, select "Yes"	✓	
	Confirm samples are identified (Blue P Icon)	✓	
	Confirm correct analysis date and time are listed	✓	
	Confirm samples have the correct dilution factors. TOC – Check for manual dilutions not entered into instrument run log, Auto dilutions (Aut. Dil.) and Injections volume (Inj. Vol.)	✓	
	Confirm samples have the correct method chain assigned	✓	
	Confirm that solid samples have the % moisture listed		N/A
Worksheet	Populate all appropriate fields in the worksheet. Initial Amount, Final Amount, pH, etc.	✓	
Reagents	Confirm reagents are correct and properly associated with QC samples. Confirm that reagent amounts are correct. If reagents are new, verify that the correct COA has been attached to the source standard	✓	
Results	Check for special instructions (Login, Method and Sample comments) - red notebook icon	✓	
	Check for any QC failures	✓	
	Set status for samples based on QC and sample results info (i.e., set to primary analysis with passing QC or reject samples without passing QC or samples that are over-range).	✓	
	Address any results that are reported without passing QC with an NCM	✓	
QC Links	Confirm QC links are correct	✓	
Hist. Data Check	Check historical data. Print charts for outliers. Take corrective action as is appropriate	✓	
Sample List	Re-calculate data and set to appropriate review status (1 st or 2 nd level review)	✓	
	Scan and attach raw data & save batch	✓	

Analyst: TP	Date: 05/22/15	2nd Level Reviewer:	Date:
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TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0008.d
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 21-May-2015 09:45:00 ALS Bottle#: 0 Worklist Smp#: 1
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-001
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist:
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK023

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.609	3.609	0.000	57717058	4.00	4.05	
2 Chloride	5.309	5.309	0.000	1147373937	80.0	80.9	
3 Nitrite as N	6.276	6.276	0.000	80246153	4.00	3.65	
4 Bromide	8.126	8.126	0.000	16612372	4.00	4.09	
5 Nitrate as N	9.459	9.459	0.000	98355445	4.00	3.83	
7 Orthophosphate as P	11.692	11.692	0.000	32737475	4.00	3.99	
6 Sulfate	14.101	14.101	0.000	691144929	80.0	77.2	

Reagents:

IC CL ICV_00010 Amount Added: 0.40 Units: mL
 IC SO4 ICV_00014 Amount Added: 0.40 Units: mL
 IC ICV 5_00077 Amount Added: 0.40 Units: mL

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0008.d

Injection Date: 21-May-2015 09:45:00 Instrument ID: WC_IonChrom11

Operator ID:

Lims ID: ICV

Worklist Smp#: 1

Client ID:

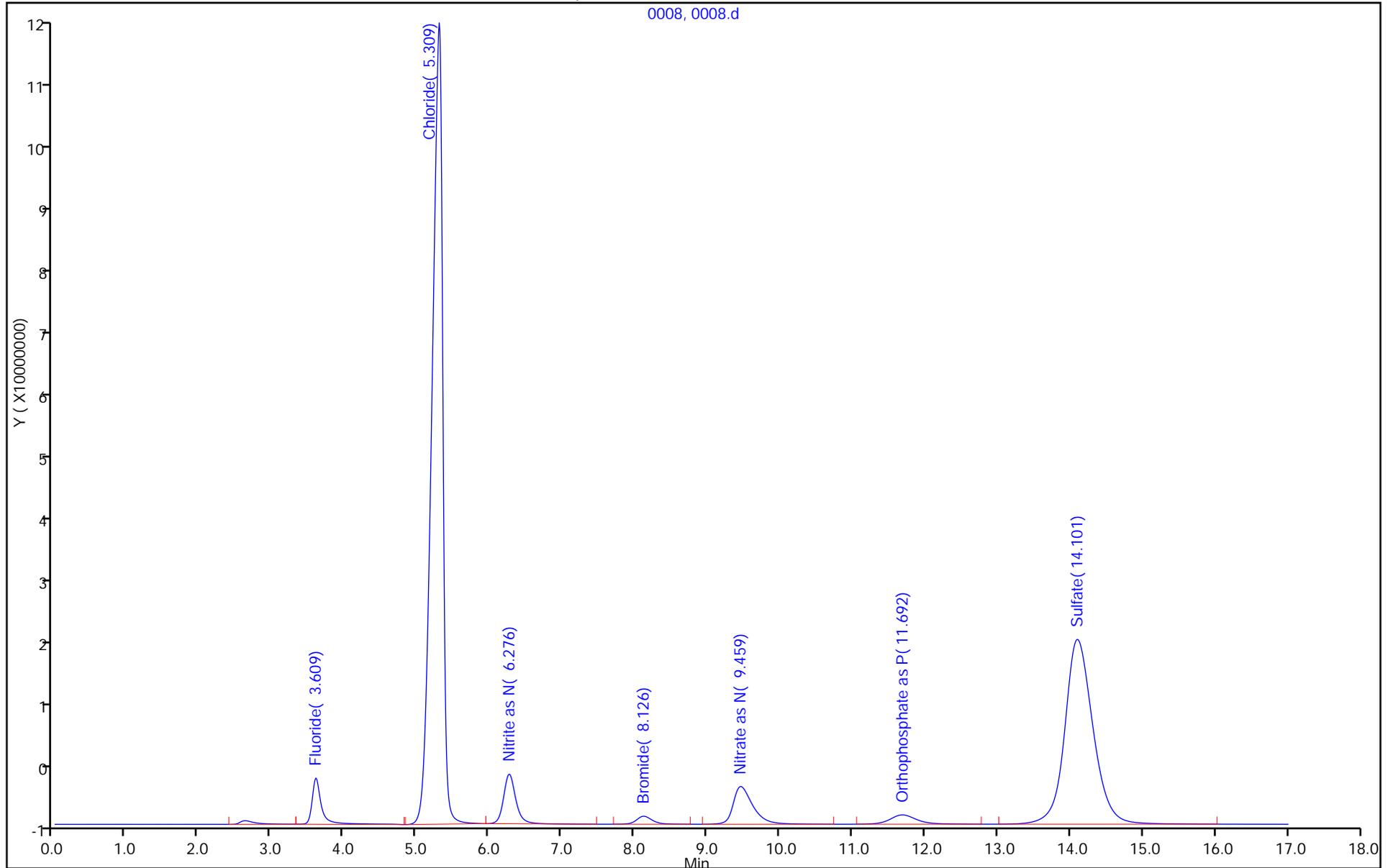
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0009.d
 Lims ID: ICB
 Client ID:
 Sample Type: ICB
 Inject. Date: 21-May-2015 10:04:00 ALS Bottle#: 0 Worklist Smp#: 2
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-002
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK023

Detector: 0005
 Number of peaks found: 2

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.634	2.459	2.909	247084	61.40	11.22		
5.200	5.042	5.467	155357	38.60	9.24		2 Chloride
			402441			Totals	

Total Unknown Area% = 61.40

- Flag Legend
 M - Manually Integrated
 A - User Assigned Compound
 B - Overlapped Base Peak
 O - Overlapping Peak
 e - Potential Peak Saturation

TestAmerica Denver
 Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0009.d
 Lims ID: ICB
 Client ID:
 Sample Type: ICB
 Inject. Date: 21-May-2015 10:04:00 ALS Bottle#: 0 Worklist Smp#: 2
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-002
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK023

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.609				ND	
2 Chloride	5.200	5.309	-0.109	155357		0.6966	
3 Nitrite as N		6.276				ND	
4 Bromide		8.126				ND	
5 Nitrate as N		9.459				ND	
7 Orthophosphate as P		11.692				ND	
6 Sulfate		14.101				ND	

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0009.d

Injection Date: 21-May-2015 10:04:00 Instrument ID: WC_IonChrom11

Operator ID:

Lims ID: ICB

Worklist Smp#: 2

Client ID:

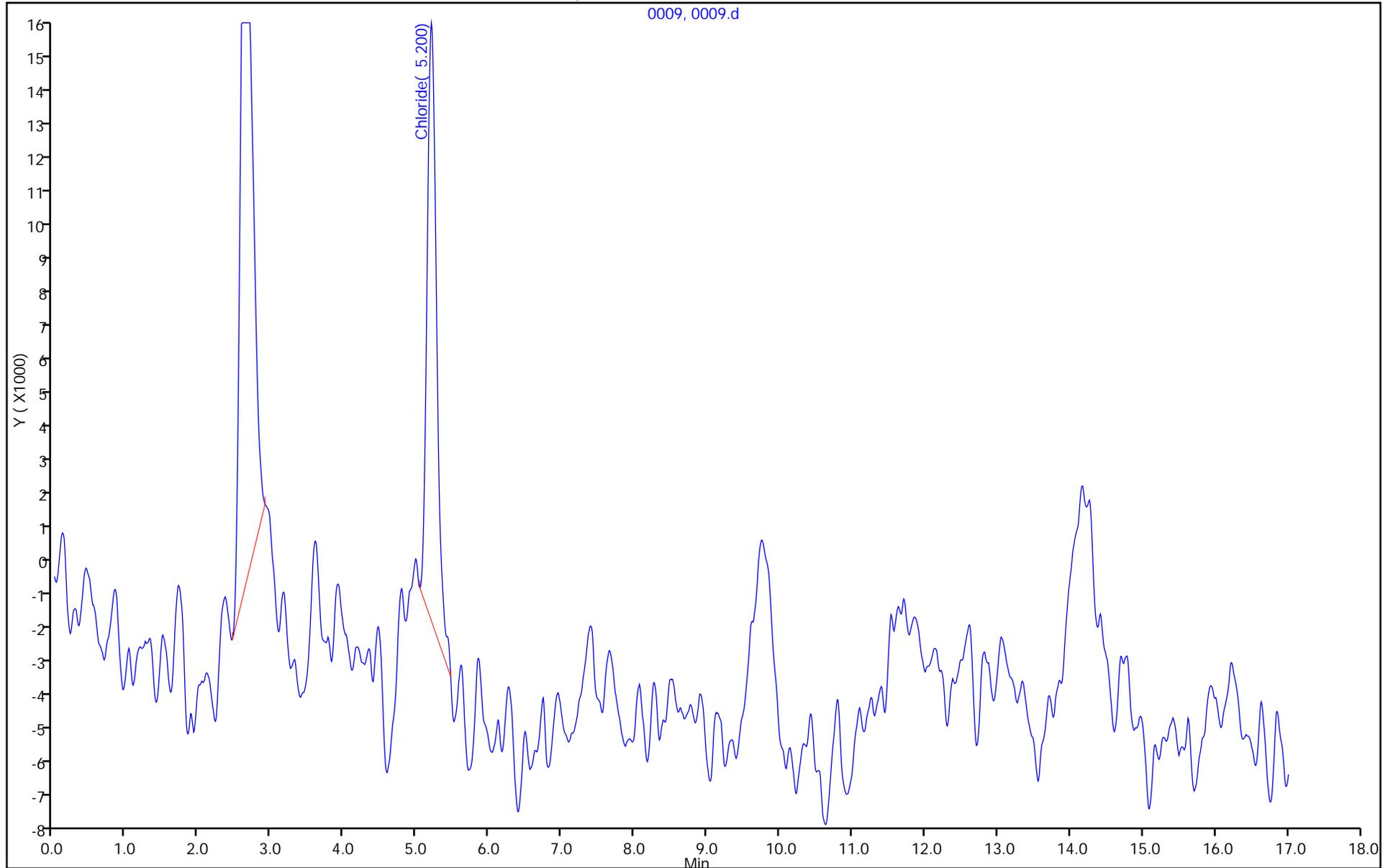
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0010.d
 Lims ID: MRL
 Client ID:
 Sample Type: MRL
 Inject. Date: 21-May-2015 10:24:00 ALS Bottle#: 0 Worklist Smp#: 3
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-003
 Misc. Info.: 10
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK023

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.642	2.459	2.950	388106	0.72	12.05		
3.609	3.334	4.092	2457989	4.57	9.04		1 Fluoride
5.209	4.850	5.842	23756258	44.20	9.23		2 Chloride
6.284	5.975	6.800	3657496	6.81	12.18		3 Nitrite as N
8.159	7.859	8.642	794434	1.48	15.97		4 Bromide
9.625	9.192	10.375	4673331	8.70	19.77		5 Nitrate as N
11.725	11.409	12.184	999968	1.86	22.79		7 Orthophosphate as P
14.209	13.442	15.092	17016806	31.66	28.32		6 Sulfate
			53744388			Totals	

Total Unknown Area% = 0.72

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0010.d
 Lims ID: MRL
 Client ID:
 Sample Type: MRL
 Inject. Date: 21-May-2015 10:24:00 ALS Bottle#: 0 Worklist Smp#: 3
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-003
 Misc. Info.: 10
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK023

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.609	3.609	0.000	2457989	0.2000	0.2404	
2 Chloride	5.209	5.309	-0.100	23756258	2.50	2.35	
3 Nitrite as N	6.284	6.276	0.008	3657496	0.2000	0.2375	
4 Bromide	8.159	8.126	0.033	794434	0.2000	0.2301	
5 Nitrate as N	9.625	9.459	0.166	4673331	0.2000	0.2253	
7 Orthophosphate as P	11.725	11.692	0.033	999968	0.2000	0.2259	
6 Sulfate	14.209	14.101	0.108	17016806	2.50	2.46	

Reagents:

IC Cal low_00087 Amount Added: 0.02 Units: mL
 IC CAL cl/so4_00049 Amount Added: 0.05 Units: mL

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0010.d

Injection Date: 21-May-2015 10:24:00 Instrument ID: WC_IonChrom11

Lims ID: MRL

Operator ID:

Worklist Smp#: 3

Client ID:

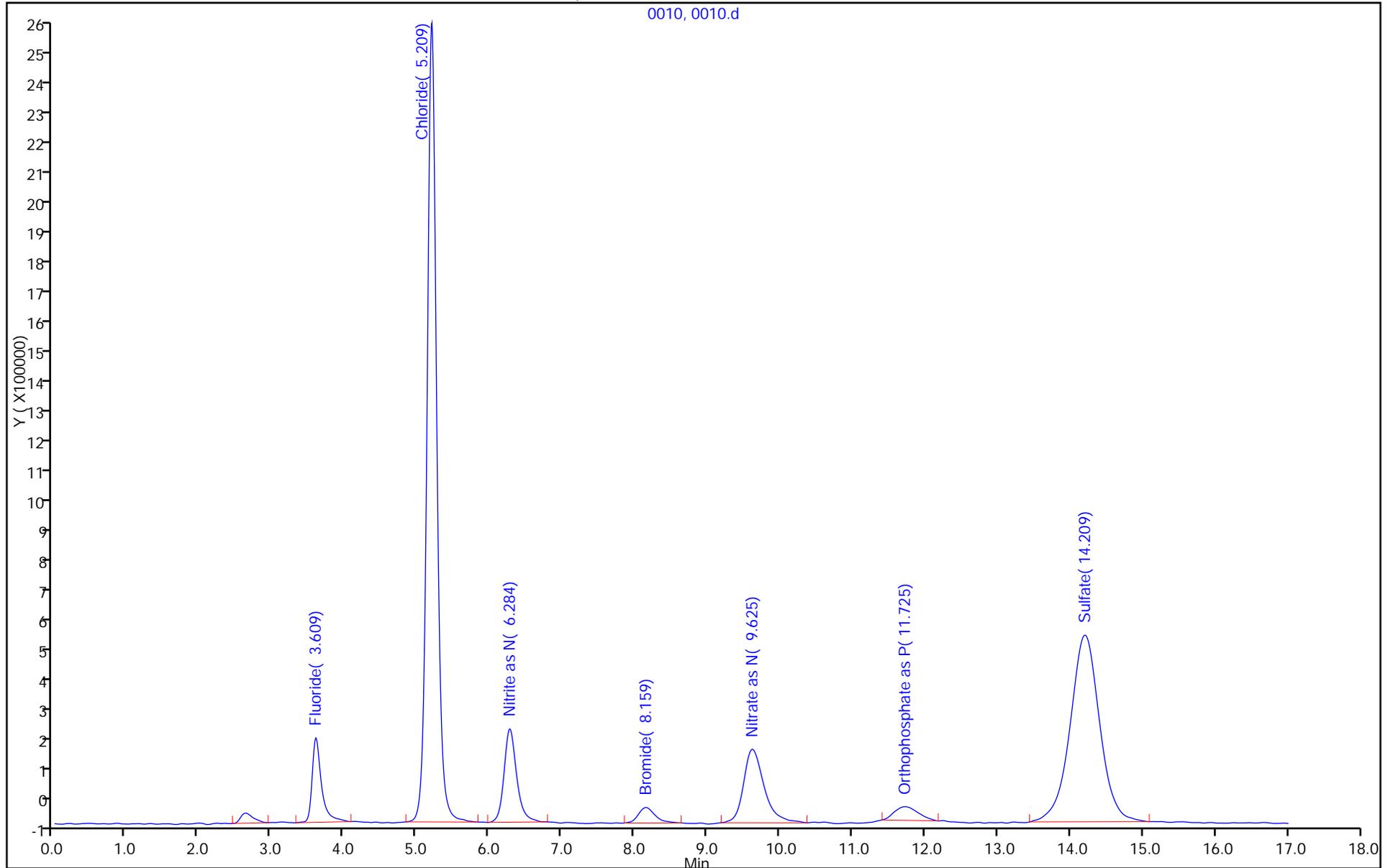
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0011.d
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 21-May-2015 10:44:00 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-004
 Misc. Info.: 11 f
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK023

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.634	2.409	3.342	8336584	0.31	14.30		
3.609	3.342	4.834	73775051	2.78	8.97		1 Fluoride
5.334	4.842	5.950	1409559602	53.09	11.04		2 Chloride
6.284	5.950	7.467	108944180	4.10	11.75		3 Nitrite as N
8.134	7.700	8.900	20512433	0.77	15.13		4 Bromide
9.459	8.917	10.825	126398994	4.76	18.90		5 Nitrate as N
11.675	10.984	12.884	42534025	1.60	25.61		7 Orthophosphate as P
14.075	12.967	16.317	864771017	32.57	27.22		6 Sulfate
			2654831886			Totals	

Total Unknown Area% = 0.31

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0011.d
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 21-May-2015 10:44:00 ALS Bottle#: 0 Worklist Smp#: 4
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-004
 Misc. Info.: 11 f
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK023

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.609	3.609	0.000	73775051	5.00	5.16	
2 Chloride	5.334	5.309	0.025	1409559602	100.0	99.2	
3 Nitrite as N	6.284	6.276	0.008	108944180	5.00	4.93	
4 Bromide	8.134	8.126	0.008	20512433	5.00	5.04	
5 Nitrate as N	9.459	9.459	0.000	126398994	5.00	4.91	
7 Orthophosphate as P	11.675	11.692	-0.017	42534025	5.00	5.15	
6 Sulfate	14.075	14.101	-0.026	864771017	100.0	96.5	

Reagents:

IC LCS_00266

Amount Added: 5.00

Units: mL

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0011.d

Injection Date: 21-May-2015 10:44:00 Instrument ID: WC_IonChrom11

Lims ID: LCS

Operator ID:

Worklist Smp#: 4

Client ID:

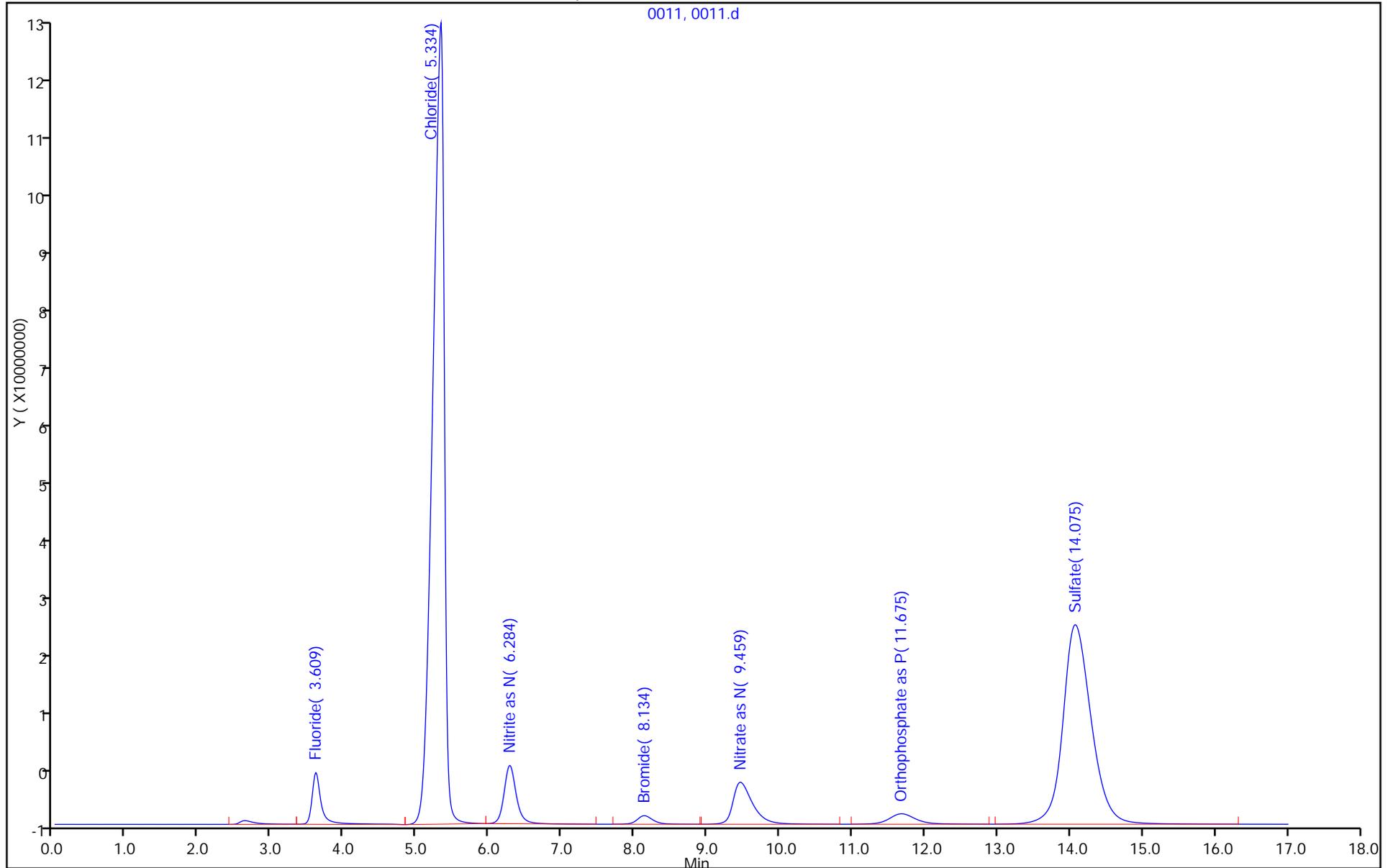
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0012.d
 Lims ID: LCSD
 Client ID:
 Sample Type: LCSD
 Inject. Date: 21-May-2015 11:04:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-005
 Misc. Info.: 12 f
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK023

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.634	2.400	3.317	8555753	0.32	14.24		
3.609	3.325	4.825	73780122	2.78	8.89		1 Fluoride
5.334	4.842	5.950	1407964648	53.06	11.03		2 Chloride
6.275	5.950	7.500	110470980	4.16	11.76		3 Nitrite as N
8.134	7.675	8.842	20627141	0.78	15.20		4 Bromide
9.459	8.850	10.850	126481152	4.77	18.90		5 Nitrate as N
11.675	10.917	12.842	42917395	1.62	25.64		7 Orthophosphate as P
14.067	12.975	15.834	862807909	32.51	27.18		6 Sulfate
			2653605100			Totals	

Total Unknown Area% = 0.32

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0012.d
 Lims ID: LCSD
 Client ID:
 Sample Type: LCSD
 Inject. Date: 21-May-2015 11:04:00 ALS Bottle#: 0 Worklist Smp#: 5
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-005
 Misc. Info.: 12 f
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK023

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.609	3.609	0.000	73780122	5.00	5.16	
2 Chloride	5.334	5.309	0.025	1407964648	100.0	99.1	
3 Nitrite as N	6.275	6.276	-0.001	110470980	5.00	4.99	
4 Bromide	8.134	8.126	0.008	20627141	5.00	5.06	
5 Nitrate as N	9.459	9.459	0.000	126481152	5.00	4.92	
7 Orthophosphate as P	11.675	11.692	-0.017	42917395	5.00	5.19	
6 Sulfate	14.067	14.101	-0.034	862807909	100.0	96.2	

Reagents:

IC LCS_00266 Amount Added: 5.00 Units: mL

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0012.d

Injection Date: 21-May-2015 11:04:00 Instrument ID: WC_IonChrom11

Lims ID: LCSD

Operator ID:

Client ID:

Worklist Smp#: 5

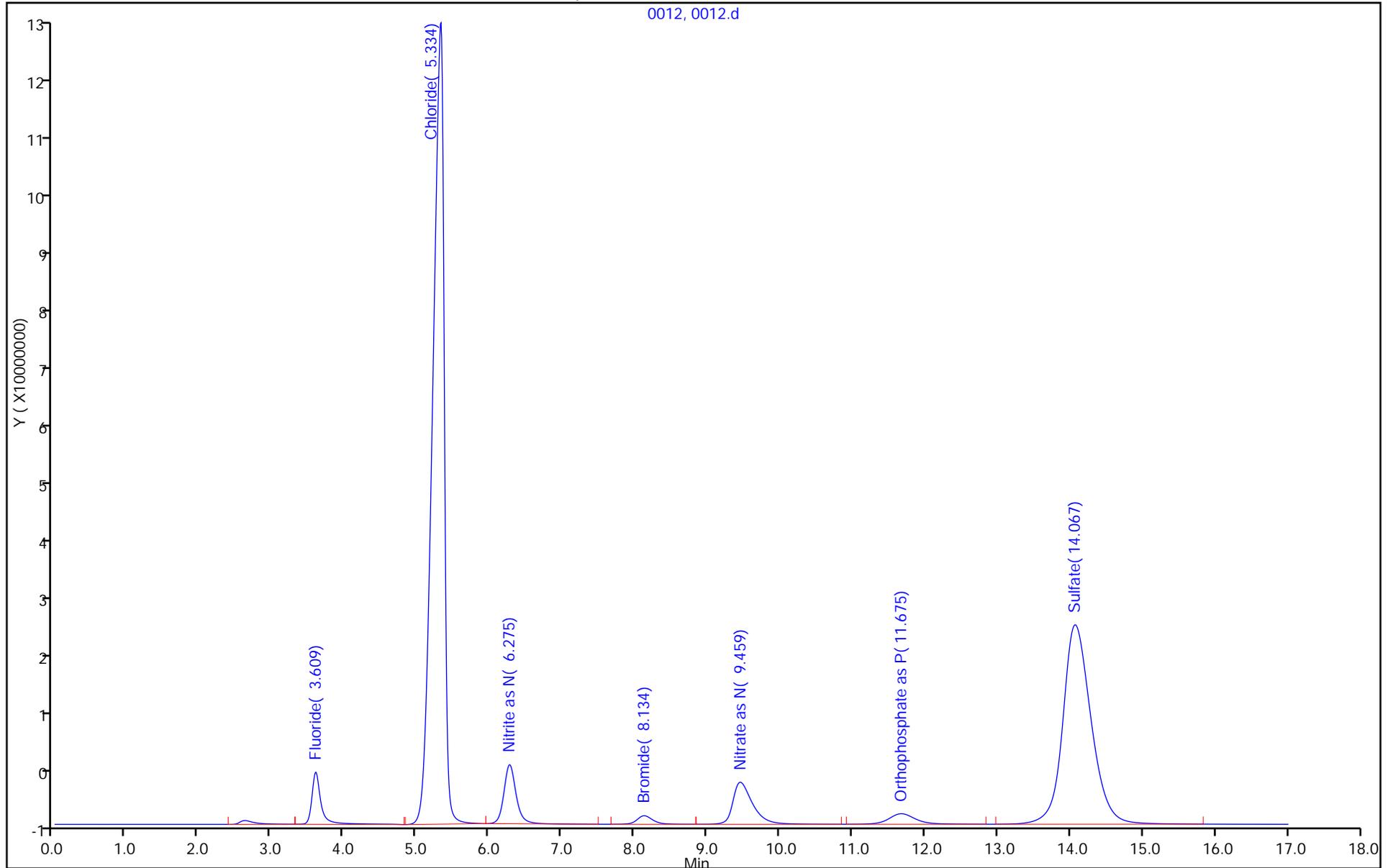
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0013.d
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 21-May-2015 11:24:00 ALS Bottle#: 0 Worklist Smp#: 6
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-006
 Misc. Info.: 13 f
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK023

Detector: 0005
 Number of peaks found: 2

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.626	2.459	3.034	247279	50.97	15.26		
5.201	5.034	5.417	237837	49.03	8.25		2 Chloride
			485116			Totals	

Total Unknown Area% = 50.97

- Flag Legend
 M - Manually Integrated
 A - User Assigned Compound
 B - Overlapped Base Peak
 O - Overlapping Peak
 e - Potential Peak Saturation

TestAmerica Denver
 Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0013.d
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 21-May-2015 11:24:00 ALS Bottle#: 0 Worklist Smp#: 6
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-006
 Misc. Info.: 13 f
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK023

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.609				ND	
2 Chloride	5.201	5.309	-0.108	237837		0.7024	
3 Nitrite as N		6.276				ND	
4 Bromide		8.126				ND	
5 Nitrate as N		9.459				ND	
7 Orthophosphate as P		11.692				ND	
6 Sulfate		14.101				ND	

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0013.d

Injection Date: 21-May-2015 11:24:00 Instrument ID: WC_IonChrom11

Operator ID:

Lims ID: MB

Worklist Smp#: 6

Client ID:

Injection Vol: 25.0 ul

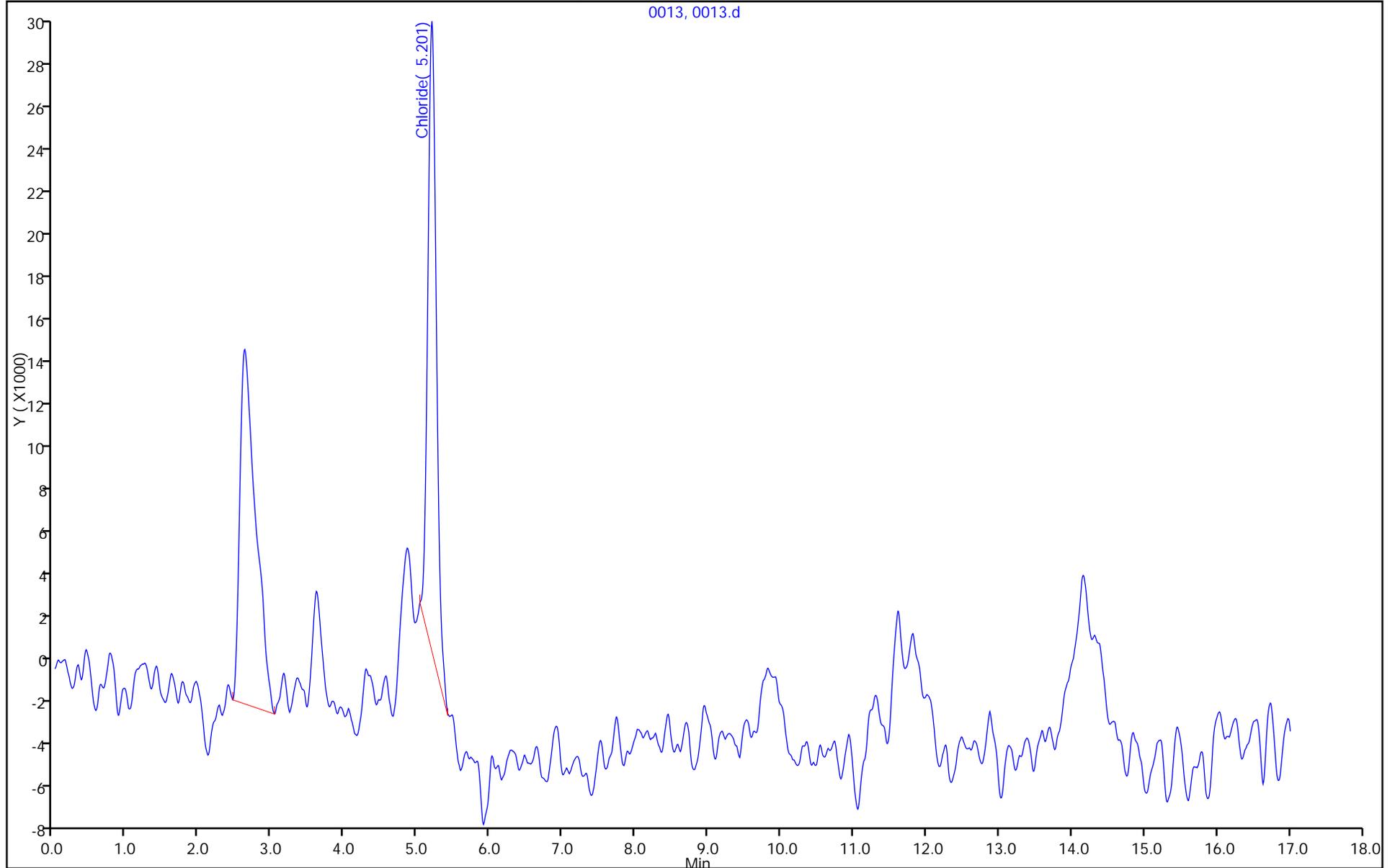
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions 28D

0013, 0013.d



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0014.d
 Lims ID: 280-69589-D-2 Lab Sample ID: 280-69589-2
 Client ID: 54400-MW54-0515
 Sample Type: Client
 Inject. Date: 21-May-2015 14:12:00 ALS Bottle#: 0 Worklist Smp#: 7
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-007
 Misc. Info.: 17121 508
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK023

First Level Reviewer: janssene Date: 22-May-2015 07:43:57

Detector: 0005

Number of peaks found: 6

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.634	2.392	3.450	9179308	1.81	16.43		
3.617	3.459	4.234	2824831	0.56	11.43		1 Fluoride
5.317	4.600	6.317	298709601	58.84	8.27		2 Chloride
8.184	7.967	8.609	226952	0.04	20.22		4 Bromide
9.575	8.975	10.709	23456103	4.62	19.42		5 Nitrate as N
14.184	13.234	15.442	173298640	34.13	27.75		6 Sulfate
			507695435			Totals	

Total Unknown Area% = 1.81

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0014.d
 Lims ID: 280-69589-D-2 Lab Sample ID: 280-69589-2
 Client ID: 54400-MW54-0515
 Sample Type: Client
 Inject. Date: 21-May-2015 14:12:00 ALS Bottle#: 0 Worklist Smp#: 7
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-007
 Misc. Info.: 17121 508
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK023

First Level Reviewer: janssene Date: 22-May-2015 07:43:57

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	3.617	3.609	0.008	2824831	0.2657	
2 Chloride	5.317	5.309	0.008	298709601	21.6	
3 Nitrite as N		6.276			ND	
4 Bromide	8.184	8.126	0.058	226952	0.0917	
5 Nitrate as N	9.575	9.459	0.116	23456103	0.9488	
7 Orthophosphate as P		11.692			ND	
6 Sulfate	14.184	14.101	0.083	173298640	19.8	

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0014.d

Injection Date: 21-May-2015 14:12:00

Instrument ID: WC_IonChrom11

Operator ID:

Lims ID: 280-69589-D-2

Lab Sample ID: 280-69589-2

Worklist Smp#: 7

Client ID: 54400-MW54-0515

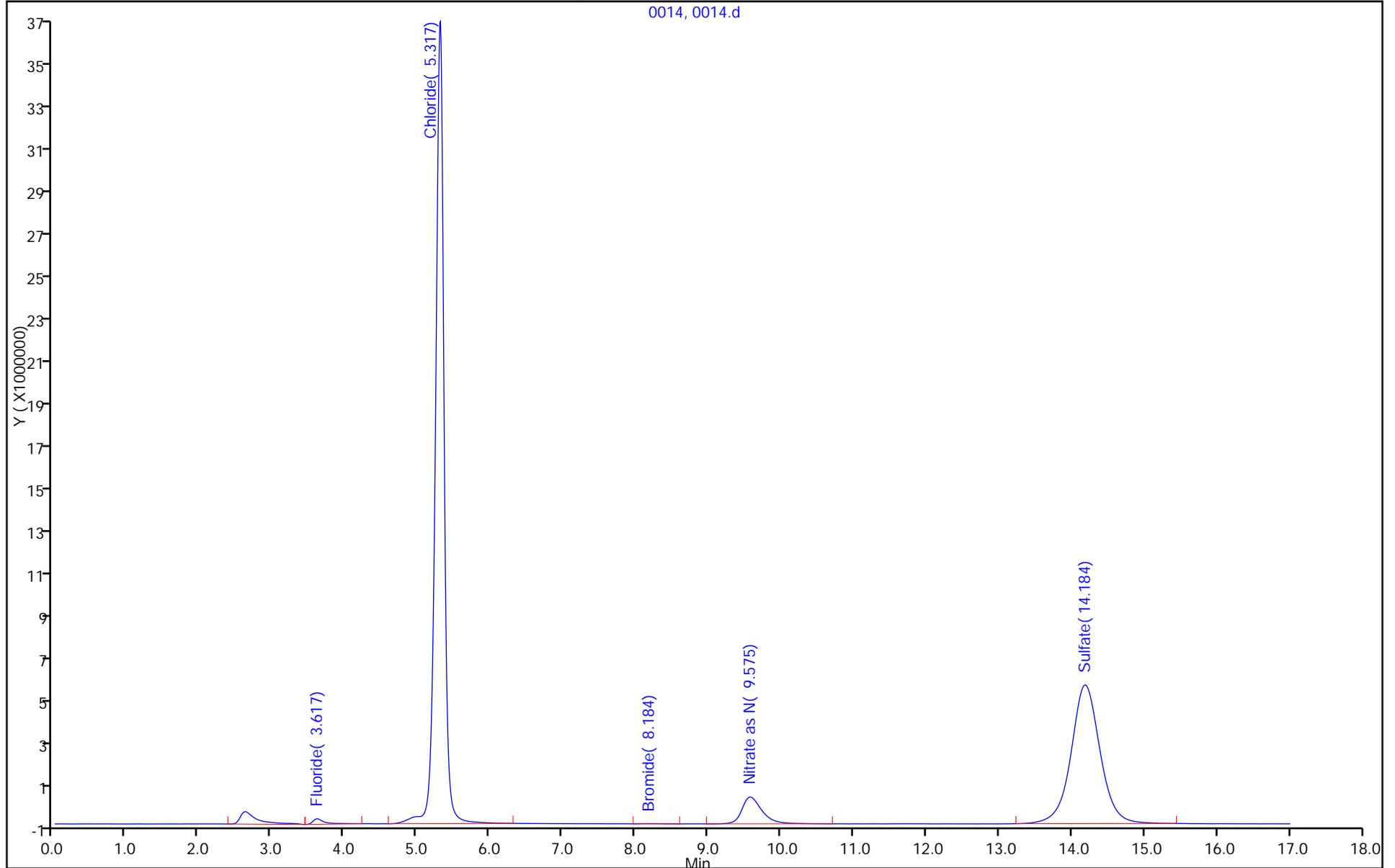
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0015.d
 Lims ID: 280-69589-D-2 DU
 Client ID:
 Sample Type: DU
 Inject. Date: 21-May-2015 14:31:00 ALS Bottle#: 0 Worklist Smp#: 8
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-008
 Misc. Info.: 14583
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK023

Detector: 0005
 Number of peaks found: 6

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.626	2.417	3.451	8771794	1.72	16.38		
3.617	3.459	4.367	2943542	0.58	12.10		1 Fluoride
5.309	4.567	6.726	300008815	58.92	8.28		2 Chloride
8.201	7.984	8.392	103023	0.02	12.45		4 Bromide
9.567	9.059	10.617	23370392	4.59	19.23		5 Nitrate as N
14.184	13.201	15.451	173988961	34.17	27.81		6 Sulfate
			509186527			Totals	

Total Unknown Area% = 1.72

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
 Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0015.d
 Lims ID: 280-69589-D-2 DU
 Client ID:
 Sample Type: DU
 Inject. Date: 21-May-2015 14:31:00 ALS Bottle#: 0 Worklist Smp#: 8
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-008
 Misc. Info.: 14583
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK023

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.617	3.609	0.008	2943542		0.2739	
2 Chloride	5.309	5.309	0.000	300008815		21.7	
3 Nitrite as N		6.276				ND	
4 Bromide	8.201	8.126	0.075	103023		0.0615	
5 Nitrate as N	9.567	9.459	0.108	23370392		0.9455	
7 Orthophosphate as P		11.692				ND	
6 Sulfate	14.184	14.101	0.083	173988961		19.9	

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0015.d

Injection Date: 21-May-2015 14:31:00 Instrument ID: WC_IonChrom11

Operator ID:

Lims ID: 280-69589-D-2 DU

Worklist Smp#: 8

Client ID:

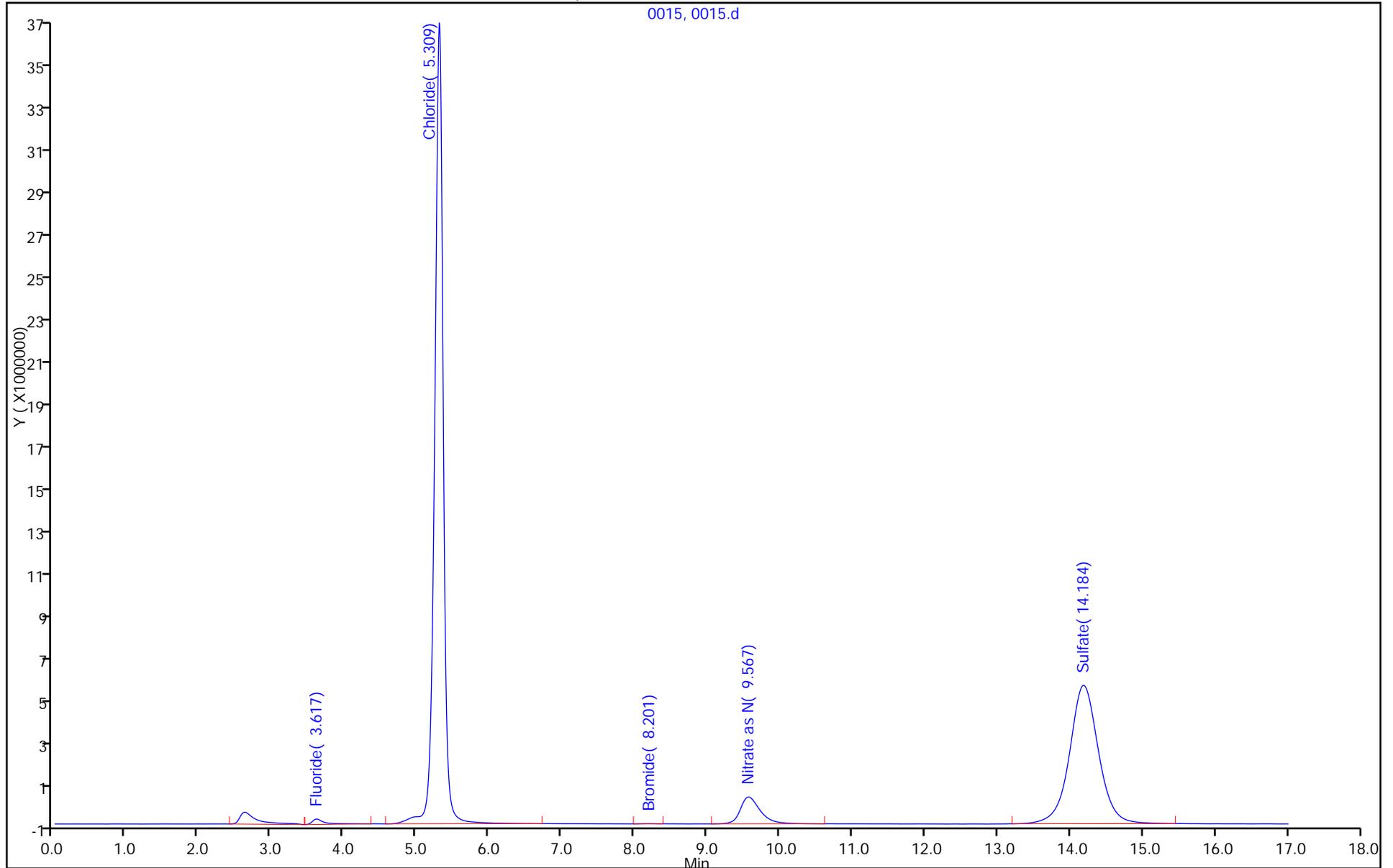
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0016.d
 Lims ID: 280-69589-D-2 MS
 Client ID:
 Sample Type: MS
 Inject. Date: 21-May-2015 14:51:00 ALS Bottle#: 0 Worklist Smp#: 9
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-009
 Misc. Info.: 22273
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK023

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.625	2.409	3.409	13614909	0.93	15.54		
3.617	3.409	4.625	73054745	5.01	9.51		1 Fluoride
5.342	4.634	5.967	667801730	45.79	8.79		2 Chloride
6.309	5.967	7.509	104370408	7.16	11.58		3 Nitrite as N
8.150	7.709	8.867	21090999	1.45	15.03		4 Bromide
9.450	8.875	10.925	154317976	10.58	18.77		5 Nitrate as N
11.825	11.142	13.159	36612988	2.51	36.92		7 Orthophosphate as P
14.150	13.192	15.675	387666159	26.58	27.22		6 Sulfate
			1458529914			Totals	

Total Unknown Area% = 0.93

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0016.d
 Lims ID: 280-69589-D-2 MS
 Client ID:
 Sample Type: MS
 Inject. Date: 21-May-2015 14:51:00 ALS Bottle#: 0 Worklist Smp#: 9
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-009
 Misc. Info.: 22273
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK023

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.617	3.609	0.008	73054745	5.00	5.11	
2 Chloride	5.342	5.309	0.033	667801730	25.0	47.4	
3 Nitrite as N	6.309	6.276	0.033	104370408	5.00	4.72	
4 Bromide	8.150	8.126	0.024	21090999	5.00	5.18	
5 Nitrate as N	9.450	9.459	-0.009	154317976	5.00	5.99	
7 Orthophosphate as P	11.825	11.692	0.133	36612988	5.00	4.45	
6 Sulfate	14.150	14.101	0.049	387666159	25.0	43.6	

Reagents:

ICMS/MSD WEEK_00321 Amount Added: 0.05 Units: mL

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0016.d

Injection Date: 21-May-2015 14:51:00 Instrument ID: WC_IonChrom11

Operator ID:

Lims ID: 280-69589-D-2 MS

Worklist Smp#: 9

Client ID:

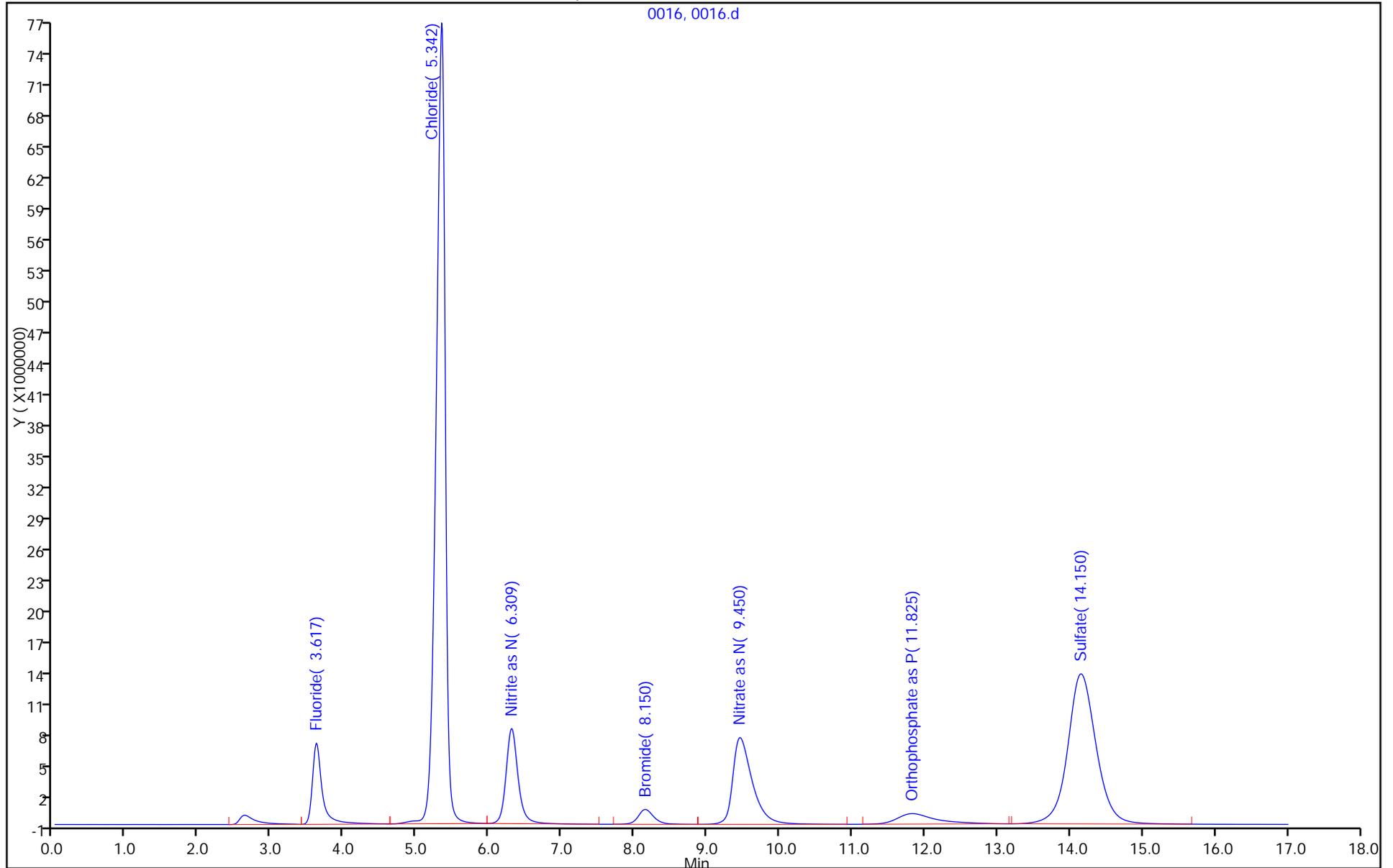
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0017.d
 Lims ID: 280-69589-D-2 MSD
 Client ID:
 Sample Type: MSD
 Inject. Date: 21-May-2015 15:11:00 ALS Bottle#: 0 Worklist Smp#: 10
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-010
 Misc. Info.: 1903
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK023

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.625	2.392	3.400	13641385	0.93	15.44		
3.617	3.409	4.609	73338014	5.03	9.44		1 Fluoride
5.342	4.625	5.959	667625067	45.75	8.78		2 Chloride
6.300	5.959	7.492	105992443	7.26	11.60		3 Nitrite as N
8.142	7.700	8.892	21189540	1.45	15.05		4 Bromide
9.442	8.900	10.617	153915759	10.55	18.70		5 Nitrate as N
11.825	11.134	13.134	36174298	2.48	36.90		7 Orthophosphate as P
14.150	13.209	15.667	387255497	26.54	27.17		6 Sulfate
			1459132003			Totals	

Total Unknown Area% = 0.93

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0017.d
 Lims ID: 280-69589-D-2 MSD
 Client ID:
 Sample Type: MSD
 Inject. Date: 21-May-2015 15:11:00 ALS Bottle#: 0 Worklist Smp#: 10
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-010
 Misc. Info.: 1903
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 22-May-2015 14:11:23 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK023

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.617	3.609	0.008	73338014	5.00	5.13	
2 Chloride	5.342	5.309	0.033	667625067	25.0	47.4	
3 Nitrite as N	6.300	6.276	0.024	105992443	5.00	4.80	
4 Bromide	8.142	8.126	0.016	21189540	5.00	5.20	
5 Nitrate as N	9.442	9.459	-0.017	153915759	5.00	5.97	
7 Orthophosphate as P	11.825	11.692	0.133	36174298	5.00	4.39	
6 Sulfate	14.150	14.101	0.049	387255497	25.0	43.5	

Reagents:

ICMS/MSD WEEK_00321 Amount Added: 0.05 Units: mL

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0017.d

Injection Date: 21-May-2015 15:11:00 Instrument ID: WC_IonChrom11

Operator ID:

Lims ID: 280-69589-D-2 MSD

Worklist Smp#: 10

Client ID:

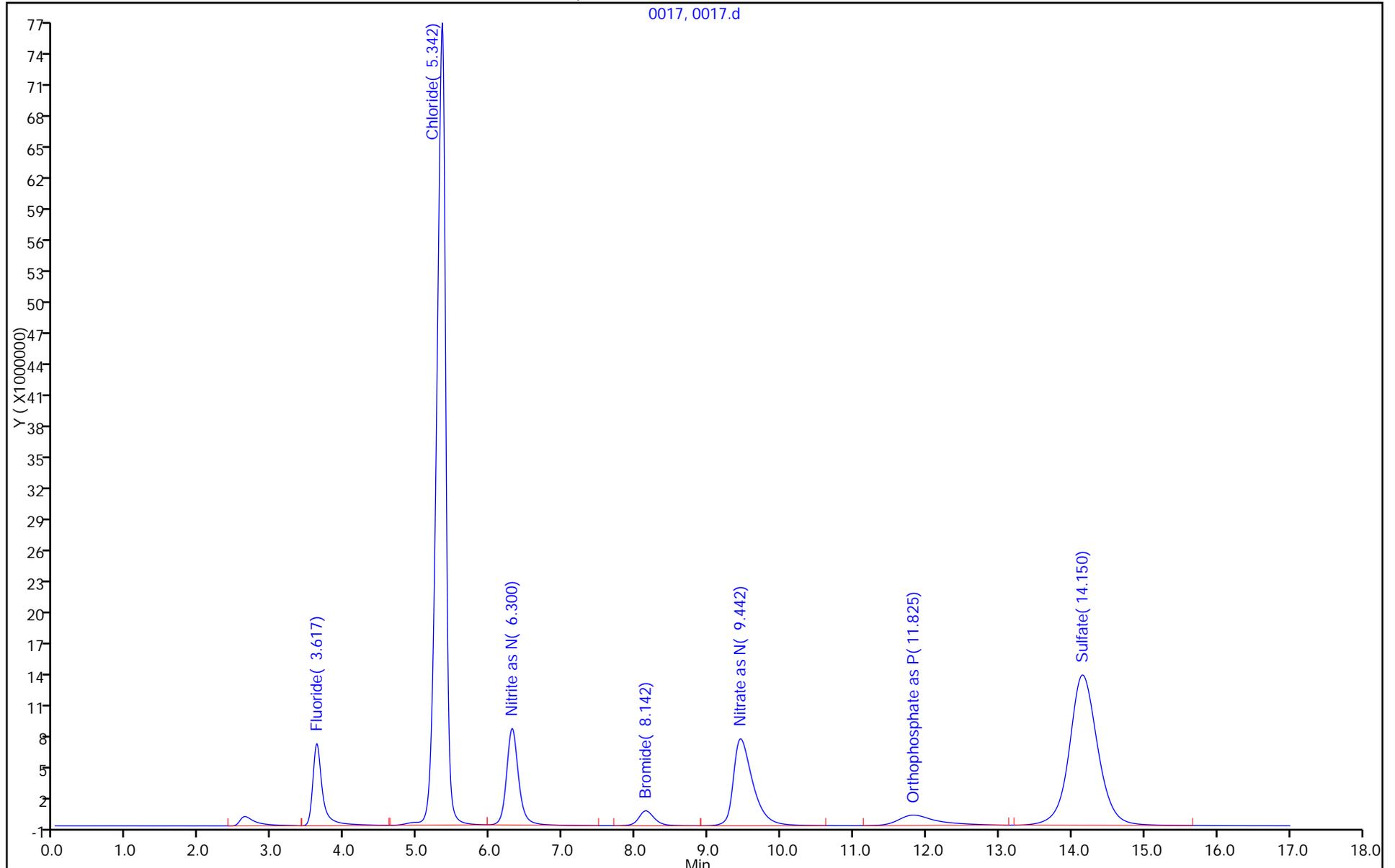
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0024.d
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 21-May-2015 17:31:00 ALS Bottle#: 0 Worklist Smp#: 17
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-017
 Misc. Info.: 29337
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 22-May-2015 14:11:30 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK023

Detector: 0005
 Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.625	2.392	3.359	10027463	0.38	14.23		
3.609	3.359	4.817	74199041	2.78	8.71		1 Fluoride
5.334	4.834	5.950	1413256500	52.90	10.88		2 Chloride
6.284	5.950	7.492	109044354	4.08	11.73		3 Nitrite as N
8.125	7.667	8.825	20549457	0.77	15.08		4 Bromide
9.450	8.909	10.842	127547819	4.77	18.84		5 Nitrate as N
11.692	10.992	12.800	42860220	1.60	25.47		7 Orthophosphate as P
14.100	13.025	16.067	874273760	32.72	27.19		6 Sulfate
			2671758614			Totals	

Total Unknown Area% = 0.38

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
CCV, Cal Verification Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0024.d
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 21-May-2015 17:31:00 ALS Bottle#: 0 Worklist Smp#: 17
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-017
 Misc. Info.: 29337
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 22-May-2015 14:11:30 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK023
 Start Cal Date: 12-May-2015 10:50:00
 End Cal Date: 12-May-2015 12:29:00

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D	%Rec
1 Fluoride	5.00	0.0	5.19	14839808	3.7	10	104
2 Chloride	100.0	0.025	99.5	14132565	-0.5	10	100
3 Nitrite as N	5.00	0.008	4.93	21808871	-1.4	10	99
4 Bromide	5.00	-0.001	5.05	4109891	0.9	10	101
5 Nitrate as N	5.00	-0.009	4.96	25509564	-0.8	10	99
7 Orthophosphate as P	5.00	0.0	5.19	8572044	3.7	10	104
6 Sulfate	100.0	-0.001	97.5	8742738	-2.5	10	98

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0024.d
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 21-May-2015 17:31:00 ALS Bottle#: 0 Worklist Smp#: 17
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-017
 Misc. Info.: 29337
 Operator ID: Instrument ID: WC_IonChrom11
 Sublist: chrom-Anions_IC11*sub1
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 22-May-2015 14:11:30 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK023

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.609	3.609	0.000	74199041	5.00	5.19	
2 Chloride	5.334	5.309	0.025	1413256500	100.0	99.5	
3 Nitrite as N	6.284	6.276	0.008	109044354	5.00	4.93	
4 Bromide	8.125	8.126	-0.001	20549457	5.00	5.05	
5 Nitrate as N	9.450	9.459	-0.009	127547819	5.00	4.96	
7 Orthophosphate as P	11.692	11.692	0.000	42860220	5.00	5.19	
6 Sulfate	14.100	14.101	-0.001	874273760	100.0	97.5	

Reagents:

IC LCS_00266 Amount Added: 5.00 Units: mL

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0024.d

Injection Date: 21-May-2015 17:31:00 Instrument ID: WC_IonChrom11

Operator ID:

Lims ID: ccv

Worklist Smp#: 17

Client ID:

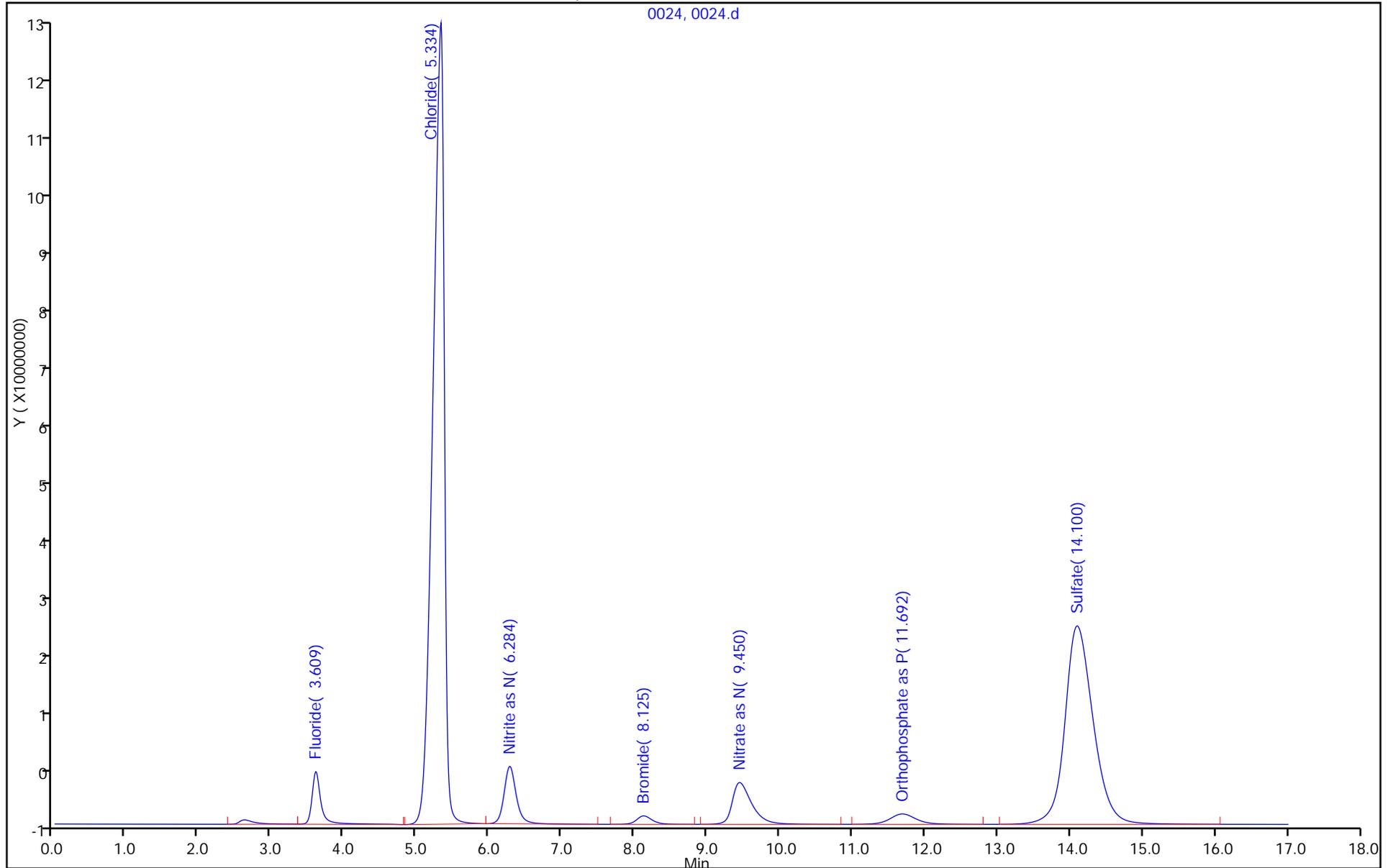
Injection Vol: 25.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions 28D



TestAmerica Denver
Area/Height Percent Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0025.d
 Lims ID: ccb
 Client ID:
 Sample Type: CCB
 Inject. Date: 21-May-2015 17:50:00 ALS Bottle#: 0 Worklist Smp#: 18
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-018
 Misc. Info.: 21903
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 22-May-2015 14:11:30 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Process Host: XAWRK023

Detector: 0005
 Number of peaks found: 4

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.634	2.409	3.317	4891661	78.53	14.36		
3.592	3.476	3.817	112538	1.81	7.75		1 Fluoride
5.201	5.026	5.442	406535	6.53	8.33		2 Chloride
14.217	13.859	14.659	818128	13.13	23.94		6 Sulfate
			6228862			Totals	

Total Unknown Area% = 78.53

Flag Legend

- M - Manually Integrated
- A - User Assigned Compound
- B - Overlapped Base Peak
- O - Overlapping Peak
- e - Potential Peak Saturation

TestAmerica Denver
 Target Compound Quantitation Report

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0025.d
 Lims ID: ccb
 Client ID:
 Sample Type: CCB
 Inject. Date: 21-May-2015 17:50:00 ALS Bottle#: 0 Worklist Smp#: 18
 Injection Vol: 25.0 ul Dil. Factor: 1.0000
 Sample Info: 280-0035274-018
 Misc. Info.: 21903
 Operator ID: Instrument ID: WC_IonChrom11
 Method: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\Anions_IC11.m
 Limit Group: Wet - Anions 28D
 Last Update: 22-May-2015 14:11:30 Calib Date: 12-May-2015 12:29:00
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\DENCHROM\ChromData\WC_IonChrom11\20150512-34924.b\0007.d
 Column 1 : Det: 0005
 Process Host: XAWRK023

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.592	3.609	-0.017	112538		0.0787	
2 Chloride	5.201	5.309	-0.108	406535		0.7142	
3 Nitrite as N		6.276				ND	
4 Bromide		8.126				ND	
5 Nitrate as N		9.459				ND	
7 Orthophosphate as P		11.692				ND	
6 Sulfate	14.217	14.101	0.116	818128		0.6620	

TestAmerica Denver

Data File: \\DENCHROM\ChromData\WC_IonChrom11\20150521-35274.b\0025.d

Injection Date: 21-May-2015 17:50:00 Instrument ID: WC_IonChrom11

Operator ID:

Lims ID: ccb

Worklist Smp#: 18

Client ID:

Injection Vol: 25.0 ul

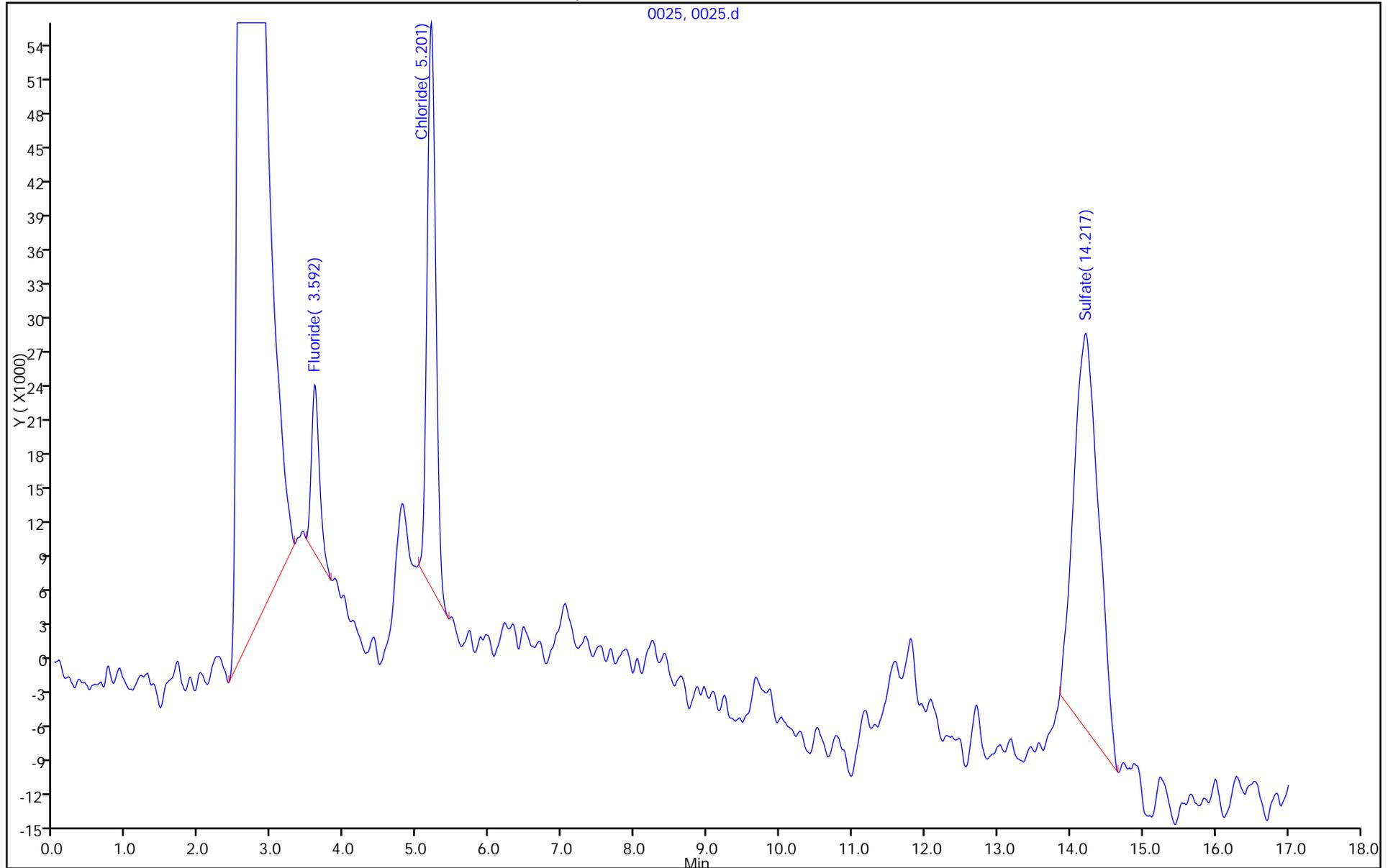
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: Anions_IC11

Limit Group: Wet - Anions 28D

0025, 0025.d



Wet Chemistry Data Review Checklist for Titration Methods				
Method(s):	2320B	Instrument:	AT3	SOP #: WCO025
Analyst:	CS	Run Date:	5/27/15	Prep Batch(s): NA
Analytical Batch:	279244			
A. Calibration/Instrument Run QC	Yes	No	N/A	2nd Level
Was the normality of the titrant verified and found acceptable?			✓	
B. Sample Results				
Are all sample dilutions appropriate and do associated RLs/MDLs reflect required dilutions or limited sample volume?			✓	
All reported results bracketed by in control CCV/CCB?	✓			
Sample analyses done within holding time? If no, create HTV NCM. NCM #	✓			
Initial pH check documented for all samples (if required)?			✓	
Preparation benchsheet completed and included in package (if applicable)?			✓	
Special client requirements checked?	✓			
Was data manually transcribed from instrument printouts or benchsheet into TALS verified 100% including dilution factors and significant figures? (If Applicable)			✓	
Do the prep and analysis dates in TALS reflect the actual dates?	✓			
STD/True Value information is updated and included?	✓			
C. Preparation/Matrix QC				
Method blank < 1/2 RL or all reported samples > 10x blank? – (Alkalinity MB <RL)	✓			
Method blank < 1/2 RL or NCM provided? – (Alkalinity MB <RL)	✓			
LCS/LCSD run for batch and within QC limits?	✓			
MS/MSD run at required frequency and within limits or NCM written?			✓	
DUP run at required frequency and RPD within 20% or NCM written?	✓			
Menu or Tab	Check		1st	2nd
Analyst Desktop	Create or open batch			
View Batch Info	Confirm all fields are populated		✓	
	Edit Analyst ID as is appropriate		✓	
Run log	Verify the correct samples and QC are run at the correct frequency (i.e., 10 samples per CCV)		✓	
Sample List	In Edit mode, If prompted to process samples, select "Yes"		✓	
	Confirm samples are identified (Blue P Icon)		✓	
	Confirm correct analysis date and time are listed		✓	
	Confirm samples have the correct dilution factors		✓	
	Confirm samples have the correct method chain assigned		✓	
	Confirm that solid samples have the % moisture listed		✓	
Worksheet	Populate all appropriate fields in the worksheet. Initial Amount, Final Amount, pH, etc.		✓	
	Confirm that data are entered correctly. Verify pH is recorded when appropriate for the method.		✓	
Reagents	Confirm reagents are correct and properly associated with QC samples. Confirm that reagent amounts are correct. If reagents are new verify that the correct COA has been attached to the source standard		✓	
Results	Check for special instructions (Login, Method and Sample comments) - red notebook icon		✓	
	Check for any QC failures		✓	
	Check for "E" flagged (over-range) data		✓	
	Set status for samples based on QC and sample results info (i.e., set to primary analysis with passing QC or reject samples without passing QC or samples that are over-range)		✓	
	Address any results that are reported without passing QC with an NCM		✓	
QC Links	Confirm QC links are correct		✓	
Hist. Data Check	Check historical data. Print charts for outliers. Take corrective action as is appropriate		✓	
Sample List	Re-calculate data and set to appropriate review status (1 st or 2 nd level review)		✓	
	Scan and attach raw data & save batch		✓	
Analyst:	CS	Date:	5/28/15	Analyst Comments:
Reviewer:		Date:		Reviewer Comments:

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL)@ 8.3	(mL)@ 4.5	(mL)@ 4.2	Conc (N)
280-69425-a-2	05/27/2015	2:09 PM	22.46	-1.00	7.46	287.32	287.32	.00	.00	.00	2.87	-1.00	.02
CCV2	05/27/2015	2:14 PM	22.61	-1.00	10.56	202.97	2.98	199.99	.00	1.00	2.03	-1.00	.02
CCB2	05/27/2015	2:18 PM	22.70	-1.00	6.16	.79	.79	.00	.00	.00	.03	.04	.02
LCS	05/27/2015	2:23 PM	22.83	-1.00	10.54	200.96	4.40	196.56	.00	.98	2.01	-1.00	.02
LCSD	05/27/2015	2:28 PM	22.90	-1.00	10.53	200.92	4.14	196.78	.00	.98	2.01	-1.00	.02
MB	05/27/2015	2:32 PM	22.78	-1.00	6.21	.82	.82	.00	.00	.00	.03	.04	.02
280-69425-c-4	05/27/2015	2:37 PM	22.64	-1.00	7.31	441.78	441.78	.00	.00	.00	4.42	-1.00	.02
DU 280-69425-c-4	05/27/2015	2:42 PM	22.67	-1.00	7.35	434.54	434.54	.00	.00	.00	4.35	-1.00	.02
280-69321-c-1	05/27/2015	2:47 PM	22.70	-1.00	7.64	430.34	430.34	.00	.00	.00	4.30	-1.00	.02
280-69321-d-2	05/27/2015	2:51 PM	22.81	-1.00	7.04	212.13	212.13	.00	.00	.00	2.12	-1.00	.02
280-69321-c-3	05/27/2015	2:55 PM	22.93	-1.00	7.03	200.54	200.54	.00	.00	.00	2.01	-1.00	.02
280-69321-c-4	05/27/2015	3:00 PM	22.93	-1.00	7.04	205.76	205.76	.00	.00	.00	2.06	-1.00	.02
280-69627-i-1	05/27/2015	3:07 PM	22.86	-1.00	7.26	1,780.06	1,780.06	.00	.00	.00	17.80	-1.00	.02
280-69627-i-2	05/27/2015	3:16 PM	22.96	-1.00	7.61	.00	.00	.00	.00	.00	.00	.00	.02
280-69627-i-3	05/27/2015	3:21 PM	23.07	-1.00	7.03	492.60	492.60	.00	.00	.00	4.93	-1.00	.02
280-69627-i-4	05/27/2015	3:25 PM	23.09	-1.00	6.62	372.00	372.00	.00	.00	.00	3.72	-1.00	.02
CCV3	05/27/2015	3:31 PM	23.19	-1.00	10.49	207.55	6.75	200.80	.00	1.00	2.08	-1.00	.02
CCB3	05/27/2015	3:34 PM	23.35	-1.00	6.20	.89	.89	.00	.00	.00	.03	.04	.02
280-69627-i-5	05/27/2015	3:41 PM	23.28	-1.00	7.58	2,090.02	2,090.02	.00	.00	.00	20.90	-1.00	.02
280-69577-g-1	05/27/2015	3:50 PM	23.41	-1.00	7.42	2,396.91	2,396.91	.00	.00	.00	23.97	-1.00	.02
280-69577-g-2	05/27/2015	3:57 PM	23.39	-1.00	7.11	1,513.87	1,513.87	.00	.00	.00	15.14	-1.00	.02
280-69589-a-2	05/27/2015	4:01 PM	23.43	-1.00	7.53	324.06	324.06	.00	.00	.00	3.24	-1.00	.02
280-69610-a-1	05/27/2015	4:06 PM	23.38	-1.00	8.51	219.60	193.76	25.83	.00	.13	2.20	-1.00	.02
280-69598-b-1	05/27/2015	4:10 PM	23.36	-1.00	6.75	84.12	84.12	.00	.00	.00	.84	-1.00	.02
280-69598-b-2	05/27/2015	4:14 PM	23.44	-1.00	7.44	68.91	68.91	.00	.00	.00	.69	-1.00	.02
280-69598-b-3	05/27/2015	4:19 PM	23.41	-1.00	7.90	63.08	63.08	.00	.00	.00	.63	-1.00	.02
280-69598-b-4	05/27/2015	4:23 PM	23.44	-1.00	7.31	47.48	47.48	.00	.00	.00	.47	-1.00	.02
280-69599-c-1	05/27/2015	4:26 PM	23.36	-1.00	5.58	37.64	37.64	.00	.00	.00	.38	-1.00	.02
CCV4	05/27/2015	4:31 PM	23.30	-1.00	10.53	200.42	14.92	185.50	.00	.93	2.00	-1.00	.02
CCB4	05/27/2015	4:35 PM	23.47	-1.00	6.14	.57	.57	.00	.00	.00	.02	.04	.02

<u>SampleID</u>	<u>RunDate</u>	<u>RunTime</u>	<u>Temp</u>	<u>cond.(uS)</u>	<u>pH</u>	<u>paik-ppm</u>	<u>talk-ppm</u>	<u>hcarb-ppm</u>	<u>carb-ppm</u>	<u>hvdr-ppm</u>	<u>(mL)@8.3</u>	<u>(mL)@4.5</u>	<u>(mL)@4.2</u>	<u>Conc (N)</u>
LCS	05/27/2015	4:40 PM	23.47	-1.00	10.54	94.84	199.11	9.43	189.67	.00	.95	1.99	-1.00	.02
LCSD	05/27/2015	4:45 PM	23.62	-1.00	10.53	94.16	199.11	10.79	188.31	.00	.94	1.99	-1.00	.02
MB	05/27/2015	4:49 PM	23.70	-1.00	6.01	.00	.66	.66	.00	.00	.00	.02	.04	.02
280-69599-c-2	05/27/2015	4:53 PM	23.59	-1.00	6.45	.00	51.03	51.03	.00	.00	.00	.51	-1.00	.02
DU 280-69599-c-2	05/27/2015	4:57 PM	23.52	-1.00	6.46	.00	51.25	51.25	.00	.00	.00	.51	-1.00	.02
280-69599-c-3	05/27/2015	5:01 PM	23.54	-1.00	6.47	.00	63.07	63.07	.00	.00	.00	.63	-1.00	.02
280-69599-c-4	05/27/2015	5:06 PM	23.54	-1.00	6.71	.00	70.66	70.66	.00	.00	.00	.71	-1.00	.02
280-69599-c-6	05/27/2015	5:10 PM	23.57	-1.00	7.96	.00	34.03	34.03	.00	.00	.00	.34	-1.00	.02
280-69599-c-7	05/27/2015	5:15 PM	23.62	-1.00	6.82	.00	64.30	64.30	.00	.00	.00	.64	-1.00	.02
280-69599-c-5	05/27/2015	5:19 PM	23.67	-1.00	7.23	.00	75.33	75.33	.00	.00	.00	.75	-1.00	.02
280-69599-c-8	05/27/2015	5:22 PM	23.60	-1.00	6.99	.00	51.10	51.10	.00	.00	.00	.51	-1.00	.02
280-69535-a-1	05/27/2015	5:27 PM	23.59	-1.00	7.90	.00	82.39	82.39	.00	.00	.00	.82	-1.00	.02
280-69535-a-2	05/27/2015	5:32 PM	23.62	-1.00	8.05	.00	80.58	80.58	.00	.00	.00	.81	-1.00	.02
CCV5	05/27/2015	5:37 PM	23.62	-1.00	10.49	90.77	195.75	14.21	181.53	.00	.91	1.96	-1.00	.02
CCB5	05/27/2015	5:41 PM	23.68	-1.00	6.14	.00	.74	.74	.00	.00	.00	.02	.04	.02

TestAmerica Denver

Wet Chemistry Data Review Checklist for Gravimetric Methods

Method(s): <u>2540C-Calc'd</u>	Instrument: <u>Bal</u>	SOP #: <u>WC-0064</u>	Analyst: <u>SVC</u>			
Run Date: <u>05/26/15</u>	Prep Batch(s): <u>_____</u>	Analytical Batch: <u>299061</u>				
A. Balance, Oven, and DI Water QC Checks			Yes	No	N/A	2 nd
Was the balance calibration verified before and after processing samples and noted in the "Balance Calibration Log" for the date(s) the samples were processed?			✓			
Was the oven temperature within method requirements and recorded in the "Oven Temperature" logbook for the date(s) the samples were processed?			✓			
Was the daily conductivity check of the deionized water recorded in the "Conductivity Logbook"?			✓			X
B. Method Requirements						
If sample is visibly oily, was this noted on the benchsheet?					✓	X
Was final residue weight within minimum/maximum requirements?			✓			X
Were the initial and final drying dates and times recorded on the benchsheet and were all samples dried for at least one hour?			✓			X
C. Sample Results						
TDS/Conductivity ratio or historical data checked?			✓			X
For % Moisture, was the Final Dried Weight < Initial Pan Weight or is the result greater than 100%?					✓	X
Were sample analyses done within holding time? If no, create HTV NCM. NCM#			✓			X
Were special client requirements met?			✓			X
Were data that were manually transcribed from instrument printouts into TALS verified 100% including dilution factors, significant figures and units?			✓			X
Do the prep and analysis dates in TALS reflect the actual dates?			✓			X
STD/True Value information is updated and included?			✓			X
D. Preparation/Matrix QC						
Method blank < 1/2 RL or all reported samples > 10 X RL? - (HEM, SGT HEM, TDS, TSS MB <RL)			✓			X
Method blank < 1/2 RL or NCM provided? - (HEM, SGT HEM, TDS, TSS MB <RL)			✓			X
LCS/LCSD run for batch and within QC limits?			✓			X
DUP run for batch and RPD < 20% for samples > 5 X RL?			✓			X
DUP run at required frequency and RPD within acceptance limits or NCM written?			✓			X
Menu or Tab	Check		1 st	2 nd		
Analyst Desktop	Create or and open batch					
View Batch Info	Confirm all fields are populated		✓	✓		
	Edit Analyst ID as is appropriate		✓	✓		
Run log	Verify the correct samples and QC are run at the correct frequency (i.e., 10 samples per CCV)		✓	✓		
Sample List	In edit mode, if prompted to process samples, select "Yes"		✓	✓		
	Confirm samples are identified (Blue P Icon)		✓	✓		
	Confirm correct analysis date and time are listed		✓	✓		
	Confirm samples have the correct dilution factors		✓	✓		
	Confirm samples have the correct method chain assigned		✓	✓		
	Confirm that solid samples have the % moisture listed		N/A	✓		
Worksheet	Populate all appropriate fields in the worksheet. Initial Amount, Final Amount, pH, etc.		✓	✓		
	Confirm that data are entered correctly. Verify pH is recorded when appropriate for the method.		✓	✓		
Reagents	Confirm reagents are correct and properly associated with QC samples. Confirm that reagent amounts are correct. If reagents are new verify that the correct COA has been attached to the source standard		✓	✓		
Results	Check for special instructions (Login, Method and Sample comments) - red notebook icon		✓	✓		
	Check for any QC failures		✓	✓		
	Set status for samples based on QC and sample results info (i.e., set to primary analysis with passing QC or reject samples without passing QC or sample that are over-range.		✓	✓		
	Address any results that are reported without passing QC with an NCM.		✓	✓		
QC Links	Confirm QC links are correct.		✓	✓		
Hist. Data Check	Check historical data. Print charts for outliers. Take corrective action as is appropriate		✓	✓		
Sample List	Re-calculate data and set to appropriate review status (1 st or 2 nd level review)		✓	✓		
	Scan and attach raw data & save batch		✓	✓		
Analyst: <u>Scott Cherry</u>	Date: <u>05/29/15</u>	Analyst Comments: <u>_____</u>				
2nd Level Reviewer: <u>Pat Newark</u>	Date: <u>6/1/15</u>	Reviewer Comments: <u>NA</u>				

2540C_Calcd Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-279061

Analyst: Cherry, Scott V

Batch Open: 5/26/2015 2:12:05PM

Batch End:

Solids, Total Dissolved (TDS)

Conductivity

Input Sample Lab ID (Analytical Method)	SDG (Job #)	Matrix	Initial Amount	Final Amount	Due Date	Analytical TAT	Div Rank	Comments	Output Sample Lab ID
MB-280-279061/1 N/A	N/A		100	0.92	N/A	N/A	N/A		
LCS~280-279061/2 N/A	N/A		100	—	N/A	N/A	N/A		
LCSD~280-279061/3 N/A	N/A		100	—	N/A	N/A	N/A		
280-69589-A-2 (2540C_Calcd)	N/A (280-69589-1)	Water	100	589	6/4/15	12_Days	4		
280-69589-A-2 (2540C_Calcd)	N/A (280-69589-1)	Water	100	585	6/9/15	12_Days	4		
280-69600-A-1 (2540C_Calcd)	N/A (280-69526-1)	Water	25	2965	6/4/15	8_Days	2		
280-69600-A-3 (2540C_Calcd)	N/A (280-69526-1)	Water	25	2684	6/4/15	8_Days	2		
280-69600-B-5 (2540C_Calcd)	N/A (280-69526-1)	Water	25	3410	6/4/15	8_Days	2		
280-69600-A-7 (2540C_Calcd)	N/A (280-69526-1)	Water	25	2816	6/4/15	8_Days	2		
280-69600-B-8 (2540C_Calcd)	N/A (280-69526-1)	Water	10	13710	6/4/15	8_Days	2		
280-69600-B-9 (2540C_Calcd)	N/A (280-69526-1)	Water	10	9940	6/4/15	8_Days	2		
280-69600-A-10 (2540C_Calcd)	N/A (280-69526-1)	Water	25	3830	6/4/15	8_Days	2		
280-69600-A-11 (2540C_Calcd)	N/A (280-69526-1)	Water	10	8760	6/4/15	8_Days	2		
280-69600-B-12 (2540C_Calcd)	N/A (280-69526-1)	Water	10	13370	6/4/15	8_Days	2		

2540C_Calcd Analysis Sheet

(To Accompany Samples to Instruments)

Analyst: Cherry, Scott V

Batch Open: 5/26/2015 2:12:05PM

Batch End:

Batch Number: 280-279061

15	280-69656-1-1 (2540C_Calcd)	N/A (280-69629-1)	Water	25	14210	6/10/15	12_Day_Rush	2	
16	280-69656-1-2 (2540C_Calcd)	N/A (280-69629-1)	Water	25	2319	6/10/15	12_Day_Rush	2	
17	280-69656-1-3 (2540C_Calcd)	N/A (280-69629-1)	Water	25	2512	6/10/15	12_Day_Rush	2	
18	280-69656-1-4 (2540C_Calcd)	N/A (280-69629-1)	Water	50	1789	6/10/15	12_Day_Rush	2	
19	280-69656-1-5 (2540C_Calcd)	N/A (280-69629-1)	Water	50	1432	6/10/15	12_Day_Rush	2	
20	280-69656-1-6 (2540C_Calcd)	N/A (280-69629-1)	Water	25	14210	6/10/15	12_Day_Rush	2	
21	280-69656-1-7 (2540C_Calcd)	N/A (280-69629-1)	Water	100	1.60	6/10/15	12_Day_Rush	2	
22	280-69577-G-1 (2540C_Calcd)	280-69577-1 (280-69577-1)	Water	5	8560	6/9/15	12_Days	4	
23	280-69577-G-2 (2540C_Calcd)	280-69577-1 (280-69577-1)	Water	5	9790	6/9/15	12_Days	4	
24	280-69747-A-1 (2540C_Calcd)	N/A (280-69747-1)	Water	50	1438	6/4/15	8_Days	2	
25	280-69747-A-1 (2540C_Calcd)	N/A (280-69747-1)	Water	50	1438	6/4/15	8_Days	2	

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Batch Number: 278571 Batch Start Date: 05/21/15 11:19 Batch Analyst: Cherry, Scott V

Batch Method: 7196A Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ColorBlk	UnCorResp	CalcMsg	Initial pH
IC 280-278571/1		7196A		10 mL	10 mL			Color Resp. is Blank	
IC 280-278571/2		7196A		10 mL	10 mL			Color Resp. is Blank	
IC 280-278571/3		7196A		10 mL	10 mL			Color Resp. is Blank	
IC 280-278571/4		7196A		10 mL	10 mL			Color Resp. is Blank	
IC 280-278571/5		7196A		10 mL	10 mL			Color Resp. is Blank	
ICV 280-278571/6		7196A		10 mL	10 mL			Color Resp. is Blank	
ICB 280-278571/7		7196A		10 mL	10 mL			Color Resp. is Blank	
LCS 280-278571/8		7196A		10 mL	10 mL			Color Resp. is Blank	
LCSD 280-278571/9		7196A		10 mL	10 mL			Color Resp. is Blank	
MB 280-278571/10		7196A		10 mL	10 mL			Color Resp. is Blank	
280-69589-E-2	54400-MW54-0515	7196A	T	10 mL	10 mL	0.003 Absorbance	0.009 Absorbance	OK	8 SU
280-69589-E-2 DU	54400-MW54-0515	7196A	T	10 mL	10 mL	0.003 Absorbance	0.009 Absorbance	OK	8 SU
280-69589-E-2 MS	54400-MW54-0515	7196A	T	10 mL	10 mL	0.003 Absorbance	0.130 Absorbance	OK	8 SU
280-69589-E-2 MSD	54400-MW54-0515	7196A	T	10 mL	10 mL	0.003 Absorbance	0.132 Absorbance	OK	8 SU
280-69589-A-3	54401-MW54-0515	7196A	T	10 mL	10 mL	0.010 Absorbance	0.014 Absorbance	OK	8 SU
CCV 280-278571/16		7196A		10 mL	10 mL			Color Resp. is Blank	
CCB 280-278571/17		7196A		10 mL	10 mL			Color Resp. is Blank	

Lab Sample ID	Client Sample ID	Method Chain	Basis	Final pH	CR6 ICV int 00898	CR6 Int cal 00596	CR6 spike sou 00513		
IC 280-278571/1		7196A				0.1 mL			
IC 280-278571/2		7196A				0.2 mL			
IC 280-278571/3		7196A				0.5 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Batch Number: 278571 Batch Start Date: 05/21/15 11:19 Batch Analyst: Cherry, Scott V

Batch Method: 7196A Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	Final pH	CR6 ICV int 00898	CR6 Int cal 00596	CR6 spike sou 00513		
IC 280-278571/4		7196A				1 mL			
IC 280-278571/5		7196A				2 mL			
ICV 280-278571/6		7196A			0.5 mL				
ICB 280-278571/7		7196A							
LCS 280-278571/8		7196A					0.1 mL		
LCS 280-278571/9		7196A					0.1 mL		
MB 280-278571/10		7196A							
280-69589-E-2	54400-MW54-0515	7196A	T	1.9 SU					
280-69589-E-2	54400-MW54-0515	7196A	T	1.9 SU					
DU									
280-69589-E-2	54400-MW54-0515	7196A	T	1.9 SU			0.1 mL		
MS									
280-69589-E-2	54400-MW54-0515	7196A	T	1.9 SU			0.1 mL		
MSD									
280-69589-A-3	54401-MW54-0515	7196A	T	1.9 SU					
CCV 280-278571/16		7196A				1 mL			
CCB 280-278571/17		7196A							

Batch Notes	
Color Reagent ID Number	CR^6 Color R_00188
Pipette ID	5000B, 1000EE, 100W
Sulfuric Acid Reagent ID Number	50% H2SO4_00020

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Batch Number: 277037 Batch Start Date: 05/12/15 10:30 Batch Analyst: Benson, Alex F

Batch Method: 9056 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	CalcMsg	IC CAL c1/so4 00047	IC Cal low 00085	
STD 280-277037/2		9056		5 mL	5 mL	OK	0.02 mL	0.02 mL	
STD 280-277037/3		9056		5 mL	5 mL	OK	0.05 mL	0.05 mL	
STD 280-277037/4		9056		5 mL	5 mL	OK	0.1 mL	0.1 mL	
STD 280-277037/5		9056		5 mL	5 mL	OK	1.2 mL	0.4 mL	
STD 280-277037/6		9056		5 mL	5 mL	OK	2.4 mL	0.8 mL	
STD 280-277037/7		9056		5 mL	5 mL	OK	4 mL	1 mL	

Batch Notes	
Batch Comment	pipettes: 100-C, 1000-AB, 5ML-IC
Eluent 1 Lot	Eluent workin_00155
Perform Calculation (0=No, 1=Yes)	1

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Batch Number: 278518 Batch Start Date: 05/21/15 09:45 Batch Analyst: Phan, Thu L

Batch Method: 9056 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	CalcMsg	IC CAL c1/so4 00049	IC Cal low 00087	IC CL ICV 00010
ICV 280-278518/1		9056		5 mL	5 mL	OK			0.4 mL
ICB 280-278518/2		9056		5 mL	5 mL	OK			
MRL 280-278518/3		9056		5 mL	5 mL	OK	0.05 mL	0.02 mL	
LCS 280-278518/4		9056		5 mL	5 mL	OK			
LCSD 280-278518/5		9056		5 mL	5 mL	OK			
MB 280-278518/6		9056		5 mL	5 mL	OK			
280-69589-D-2	54400-MW54-0515	9056	T	5 mL	5 mL	OK			
280-69589-D-2 DU	54400-MW54-0515	9056	T	5 mL	5 mL	OK			
280-69589-D-2 MS	54400-MW54-0515	9056	T	5 mL	5 mL	OK			
280-69589-D-2 MSD	54400-MW54-0515	9056	T	5 mL	5 mL	OK			
CCV 280-278518/17		9056		5 mL	5 mL	OK			
CCB 280-278518/18		9056		5 mL	5 mL	OK			

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC ICV 5 00077	IC LCS 00266	IC SO4 ICV 00014	ICMS/MSD WEEK 00321		
ICV 280-278518/1		9056		0.4 mL		0.4 mL			
ICB 280-278518/2		9056							
MRL 280-278518/3		9056							
LCS 280-278518/4		9056			5 mL				
LCSD 280-278518/5		9056			5 mL				
MB 280-278518/6		9056							
280-69589-D-2	54400-MW54-0515	9056	T						
280-69589-D-2 DU	54400-MW54-0515	9056	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Batch Number: 278518 Batch Start Date: 05/21/15 09:45 Batch Analyst: Phan, Thu L

Batch Method: 9056 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC ICV 5 00077	IC LCS 00266	IC SO4 ICV 00014	ICMS/MSD WEEK 00321		
280-69589-D-2 MS	54400-MW54-0515	9056	T				0.05 mL		
280-69589-D-2 MSD	54400-MW54-0515	9056	T				0.05 mL		
CCV 280-278518/17		9056			5 mL				
CCB 280-278518/18		9056							

Batch Notes	
Batch Comment	pipets: 5ml-ic, 1000bb, 100c
Eluent 1 Lot	Eluent working_00171
Perform Calculation (0=No, 1=Yes)	1

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Batch Number: 277038 Batch Start Date: 05/12/15 10:30 Batch Analyst: Benson, Alex F

Batch Method: 9056A Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00047	IC Cal low 00085		
STD 280-277038/2		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-277038/3		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-277038/4		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-277038/5		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-277038/6		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-277038/7		9056A		5 mL	5 mL	4 mL	1 mL		

Batch Notes	
Eluent 1 Lot	Eluent workin_00155
Pipette ID	100-C, 1000-AB, 5ML-IC

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Batch Number: 278519 Batch Start Date: 05/21/15 09:45 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00049	IC Cal low 00087	IC CL ICV 00010	IC ICV 5 00077
ICV 280-278519/1		9056A		5 mL	5 mL			0.4 mL	0.4 mL
ICB 280-278519/2		9056A		5 mL	5 mL				
MRL 280-278519/3		9056A		5 mL	5 mL	0.05 mL	0.02 mL		
LCS 280-278519/4		9056A		5 mL	5 mL				
LCSD 280-278519/5		9056A		5 mL	5 mL				
MB 280-278519/6		9056A		5 mL	5 mL				
280-69589-D-2	54400-MW54-0515	9056A	T	5 mL	5 mL				
280-69589-D-2 DU	54400-MW54-0515	9056A	T	5 mL	5 mL				
280-69589-D-2 MS	54400-MW54-0515	9056A	T	5 mL	5 mL				
280-69589-D-2 MSD	54400-MW54-0515	9056A	T	5 mL	5 mL				
CCV 280-278519/17		9056A		5 mL	5 mL				
CCB 280-278519/18		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC LCS 00266	IC SO4 ICV 00014	ICMS/MSD WEEK 00321			
ICV 280-278519/1		9056A			0.4 mL				
ICB 280-278519/2		9056A							
MRL 280-278519/3		9056A							
LCS 280-278519/4		9056A		5 mL					
LCSD 280-278519/5		9056A		5 mL					
MB 280-278519/6		9056A							
280-69589-D-2	54400-MW54-0515	9056A	T						
280-69589-D-2 DU	54400-MW54-0515	9056A	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Batch Number: 278519 Batch Start Date: 05/21/15 09:45 Batch Analyst: Phan, Thu L

Batch Method: 9056A Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC LCS 00266	IC S04 ICV 00014	ICMS/MSD WEEK 00321			
280-69589-D-2 MS	54400-MW54-0515	9056A	T			0.05 mL			
280-69589-D-2 MSD	54400-MW54-0515	9056A	T			0.05 mL			
CCV 280-278519/17		9056A		5 mL					
CCB 280-278519/18		9056A							

Batch Notes	
Eluent 1 Lot	Eluent working_00171
Pipette ID	5ml-ic, 1000bb, 100c

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Batch Number: 279244 Batch Start Date: 05/27/15 11:59 Batch Analyst: Jewell, Connie C

Batch Method: SM 2320B Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	Alk daily lcs 00473			
CCV2 280-279244/29		SM 2320B		InitialAmount is blank	10 mL			
CCB2 280-279244/30		SM 2320B		InitialAmount is blank				
LCS 280-279244/31		SM 2320B		InitialAmount is blank	10 mL			
LCSD 280-279244/32		SM 2320B		InitialAmount is blank	10 mL			
MB 280-279244/33		SM 2320B		InitialAmount is blank				
CCV3 280-279244/44		SM 2320B		InitialAmount is blank	10 mL			
CCB3 280-279244/45		SM 2320B		InitialAmount is blank				
280-69589-A-2	54400-MW54-0515	SM 2320B	T	InitialAmount is blank				
CCV4 280-279244/56		SM 2320B		InitialAmount is blank	10 mL			
CCB4 280-279244/57		SM 2320B		InitialAmount is blank				

Batch Notes	
pH Buffer 1 ID	pH2buffer_00033
pH Buffer 2 ID	pH4buffer_00120
pH Buffer 3 ID	pH7buffer_00138
pH Buffer 4 ID	pH10buffer_00097
pH Buffer 5 ID	pH12buffer_00084
pH Buffer 6 ID	ICV_00059
Sulfuric Acid Lot Number	0.02H2SO4_00168
Sulfuric Acid Vendor	Ricca
Nominal Amount Used	10 mL
Pipette ID	wc5000n
Probe ID	PCe 86 pH 1105 jun14
Normality of first Titrant	0.02 N

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Batch Number: 279244 Batch Start Date: 05/27/15 11:59 Batch Analyst: Jewell, Connie C

Batch Method: SM 2320B Batch End Date: _____

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Batch Number: 279061 Batch Start Date: 05/26/15 14:12 Batch Analyst: Cherry, Scott V

Batch Method: SM 2540C Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	CrucibleID	InitialAmount	TareWeight	Weight1	Weight2
MB 280-279061/1		SM 2540C		0.92 umhos/cm	1	100 mL	65.5408 g	65.5411 g	65.5411 g
LCS 280-279061/2		SM 2540C			2	100 mL	65.8410 g	65.8915 g	65.8917 g
LCSD 280-279061/3		SM 2540C			3	100 mL	67.1010 g	67.1505 g	67.1507 g
280-69589-A-2	54400-MW54-0515	SM 2540C	T	589 umhos/cm	4	100 mL	66.0981 g	66.1421 g	66.1423 g
280-69589-A-2 DU	54400-MW54-0515	SM 2540C	T	589 umhos/cm	5	100 mL	65.3551 g	65.3980 g	65.3983 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	WeightOne%Diff	WeightTwo%Diff	Weight4OK	Residue	Residue2	Residue3
MB 280-279061/1		SM 2540C		Pass No Unit	N/A No Unit	N/A	0.0003 g	0.0003 g	N/A g
LCS 280-279061/2		SM 2540C		Pass No Unit	N/A No Unit	N/A	0.0505 g	0.0507 g	N/A g
LCSD 280-279061/3		SM 2540C		Pass No Unit	N/A No Unit	N/A	0.0495 g	0.0497 g	N/A g
280-69589-A-2	54400-MW54-0515	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.044 g	0.0442 g	N/A g
280-69589-A-2 DU	54400-MW54-0515	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0429 g	0.0432 g	N/A g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Residue4	FinalAmount	CalcMsg	TDS LCS 00536 00055		
MB 280-279061/1		SM 2540C		N/A g	100 mL	OK			
LCS 280-279061/2		SM 2540C		N/A g	100 mL	OK	100 mL		
LCSD 280-279061/3		SM 2540C		N/A g	100 mL	OK	100 mL		
280-69589-A-2	54400-MW54-0515	SM 2540C	T	N/A g	100 mL	OK			
280-69589-A-2 DU	54400-MW54-0515	SM 2540C	T	N/A g	100 mL	OK			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Batch Number: 279061 Batch Start Date: 05/26/15 14:12 Batch Analyst: Cherry, Scott V

Batch Method: SM 2540C Batch End Date: _____

Batch Notes	
Balance ID	D91301
Conductivity Meter ID	Orion Star A112
Constant Weight (WT4) Temp Out	180 Degrees C
Constant Weight (WT2) Date/Time in Oven	05/27/15 1224 svc
Constant Weight (WT2) Date/Time Out	05/27/15 1402 svc
Constant Weight (WT2) Temp In	180 Degrees C
Constant Weight (WT2) Temp Out	180 Degrees C
Uncorrected CW (Wt2) Temp In	180 Degrees C
Uncorrected CW (Wt2) Temp Out	180 Degrees C
Constant Weight (WT3) Date/time In	05/27/15 1708 cml
Constant Weight (WT3) Date/Time Out	05/28/15 0930 svc
Constant Weight (WT3) Temp In	180 Degrees C
Constant Weight (WT3) Temp Out	180 Degrees C
Uncorrected CW (Wt3) Temp In	180 Degrees C
Uncorrected CW (Wt3) Temp Out	180 Degrees C
Constant Weight (WT4) Date/Time in Oven	05/28/15 1142 svc
Constant Weight (WT4) Date/Time Out	05/28/15 1252 svc
Constant Weight (WT4) Temp In	180 Degrees C
Uncorrected CW (WT4) Temp In	180 Degrees C
Uncorrected CW (WT4) Temp Out	180 Degrees C
Corrected Temperature in Oven	180 Degrees C
Corrected Temperature out of Oven	180 Degrees C
Date/Time Samples placed in Oven	05/26/15 1608 svc
Date/Time Samples removed from Oven	05/27/15 0800 svc
Filter Paper Lot Number	R5AA58623
Nominal Amount Used	100 mL
Oven ID	A
Oven Temperature Verification	180 Degrees C
Pipette ID	5000B
ID number of the thermometer	14-983-17C

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-69589-1

SDG No.: _____

Batch Number: 279061 Batch Start Date: 05/26/15 14:12 Batch Analyst: Cherry, Scott V

Batch Method: SM 2540C Batch End Date: _____

Uncorrected In Temperature	180 Degrees C
Uncorrected Out Temperature	180 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

Chain of Custody Record

280-69589 Chain of Custody

Client Information
 Client Contact: Anna Zabierek
 Company: GSI Environmental, Inc
 Address: 9600 Great Hills Trail, Ste 350E
 City: Austin
 State, Zip: TX, 78759
 Phone: 512-346-4474 (Tel)
 Email: alw@gsi-net.com
 Project Name: GSI - McConnell Air Force Base, Kansas
 Site: SWMU207 - Boeing

Sampler: Justin Long
Lab P.I.M.: Walker, Elaine M
Phone: 512-346-4474
E-Mail: elaine.walker@testamericainc.com

Carrier Tracking No(s): 1 Cooler
FedEx Tracking #: 5055 2457 2449

Due Date Requested:
TAT Requested (days): Standard
Purchase Order Requested: Rush for VOCs
PO #:
Project #: 3969-211
28013169
SSOW#:

Sample Identification

Sample ID	Sample Date	Sample Time	Matrix (W=water, S=solid, O=wastewater, BT=biomass, A=air)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/SD (Yes or No)	Analysis Requested	Special Instructions/Note
54403-TB18-0515	5-20-15	—	W		X	X	8260B_DOD5 - VOCs - Water	
54400-MW54-0515	5-20-15	1620	W		X	X	365.1 - Phosphate - Water 2320B - Alkalinity - Water 2540C_Calcd - TDS - Water 7198A - Hexavalent Chromium - Water RSK_175 - Dissolved Gases (Methane/Ethane/Ethene) - W	Rush on VOCs
54401-MW54-0515	5-20-15	1620	W		X	X	8260A_AFCEE - VOCs (Tetraarcs) - Soil 9604A - Total Organic Carbon - Soil	Rush on VOCs

Analysis Requested

Special Instructions/Note:
 Short Holds: Hex. Chromium (24 hr), Nitrate/Nitrite, Sulfite (48 hr)
 Preservation Codes:
 A - HCL
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO4
 F - MeOH
 G - Amchlor
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDA
 Other:
 M - Hexane
 N - None
 O - AsNaO2
 P - Na2O4S
 Q - Na2SO3
 R - Na2S2SO3
 S - H2SO4
 T - TSP Dodecahydrate
 U - Acetone
 V - MCAA
 W - pH 4-5
 Z - other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements:
 Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: [Signature] Date/Time: 5-20-15/071900 Company: [Signature]
 Relinquished by: [Signature] Date/Time: _____ Company: _____
 Relinquished by: [Signature] Date/Time: _____ Company: _____

Method of Shipment: _____
Received by: [Signature] Date/Time: 5/21/15 Company: 710
Received by: _____ Date/Time: _____ Company: _____
Received by: _____ Date/Time: _____ Company: _____

Custody Seal Intact: Yes No
 Custody Seal No.: _____
 Cooler Temperature(s) °C and Other Remarks: [Signature] 50 IRS-10-2 5/21/15

Login Sample Receipt Checklist

Client: GSI Environmental, Inc

Job Number: 280-69589-1

Login Number: 69589
List Number: 1
Creator: Soto, Mayra A

List Source: TestAmerica Denver

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	